The 2009 Report to the Secretary: Rural Health and Human Services Issues

NACRHHS

Acknowledgements

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The Committee is grateful to many others, too numerous to mention, for their support of the Committee's mission to inform and make recommendations to the Secretary and others on the state of health and human services in rural America.

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Sincerely,
The Honorable David M. Beasley, Chair

</div>

About the Committee

The National Advisory Committee on Rural Health and Human Services (NACRHHS) is a citizens' panel of nationally recognized rural health and human services experts. The Committee, chaired by former South Carolina Governor David Beasley, was chartered in 1987 to advise the Secretary of the U.S. Department of Health and Human Services (HHS) on ways to address health problems in rural America. In 2002, the Committee's mandate was expanded to include rural human services issues and a 21-member limit was set.

The Committee's private and public-sector members reflect wide-ranging, firsthand experience with rural issues, including medicine, nursing, administration, finance, law, research, business, public health, aging, welfare, and human services. Members include rural health professionals as well as representatives of State government, provider associations, and other rural interest groups.

Each year, the Committee highlights key health and human services issues affecting rural communities. Background documents are prepared for the Committee by both staff and contractors to help inform members on the issues. The Committee then produces a report with recommendations on those issues for the Secretary by the end of the year. The Committee also sends letters to the Secretary after each meeting. The letters serve as a vehicle for the Committee to raise other issues with the Secretary separate and apart from the report process.

The Committee meets three times a year. The first meeting is held during the winter in Washington, D.C. The Committee then meets twice in the field, in June and September. The Washington meeting usually coincides with the opening of a Congressional session and serves as a starting point for setting the Committee's agenda for the coming year. The field meetings include rural site visits and presentations by the host community, with some time devoted to ongoing work on the yearly topics.

The Committee is staffed by the Office of Rural Health Policy, located within the Health Resources and Services Administration at HHS. Additional staff support is provided by the Administration on Aging at HHS.

The National Advisory Committee on Rural Health and Human Services

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2008-2009 Subcommittees

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Creating Viable Patient-Centered Medical Homes

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Serving At-Risk Children in Rural Areas

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For Committee members' biographies, please visit the National Advisory Committee on Rural Health and Human Services' web site at http://ruralcommittee.hrsa.gov/

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Introduction

This is the 2009 *Annual Report* by the National Advisory Committee on Rural Health and Human Services (NACRHHS). This year's report examines three key topics in health and human services and their effects in rural areas: workforce and community development, creating viable patient-centered medical homes, and serving at-risk children. All are pertinent and timely issues that the Committee chose during its February 2008 meeting. The chapters draw from published research and from information gathered during site visits to rural North Carolina and rural Minnesota.

Workforce and Community Development

The impending health care and human services workforce shortage is a national concern that is growing more urgent every day. The U.S. Department of Labor's Bureau of Labor Statistics (BLS) predicts that health care and social assistance will be the fastest growing industry.[1]

Between 2006 and 2016, a high percentage of growth is projected for a broad range of health and human services occupations in non-metropolitan counties: the need for personal and home care aides will increase by 50.6 percent; medical assistants will increase by 35.4 percent; and pharmacy technicians will increase by 32.0 percent.[2] The Committee has noted over the years that the presence of a skilled workforce is the foundation for further development of a quality health and human services delivery system. Rural areas, in particular, are in need of more qualified workers across the full range of health and human services professions to provide adequate services for their citizens. Meeting service needs will also help economic development, by keeping stable jobs in rural communities.

As people born in the baby boomer generation retire and leave the workforce, the available pool of health and human services workers will shrink, since fewer people were born during the successive years.[3] The lack of an adequate workforce is magnified in rural areas because the elderly population is growing more rapidly in rural than in urban areas.[4] With an influx of baby boomers retiring to rural areas, rural America is experiencing a disproportionately large and growing elderly population—a population that often needs more health care and human services, which places a greater demand on the workforce. Compounding this problem is an out-migration of talented youth from some rural areas in search of broader educational and job opportunities.[5] In the face of expected workforce shortages, maintaining a qualified workforce that can adequately meet the needs of the community poses some challenges for many rural areas.

Despite the challenges, some rural communities that the Committee visited were developing training and educational opportunities that focused on providing new or increased training to local residents. This local targeting helps increase retention in key employment areas. Through the creation or expansion of post-secondary programs in rural areas that provide associate's degrees, certificates, and credentials, rural communities can improve the accessibility of health and human services workforce development programs for their residents. Such strategies can mitigate the out-migration of young adults and also provide new skills to displaced workers.

The Committee noted that there is a self-reinforcing relationship between health and human services workforce development and the overall economic development of the community. By investing in local citizens, rural leaders have been able to successfully fill many of their vacant positions. In addition, financial savings were realized from lower recruitment and retention costs for residents, compared to recruiting

health or human services professionals from other areas. Furthermore, the Committee noted several examples of impressive local partnerships between educational facilities and employers that allow rural communities to maximize the use of limited resources, while providing a variety of services.

The challenge lies in identifying effective Federal and State programs that can assist rural communities in developing these kinds of initiatives. There are a number of existing Federal programs that can play a key role in providing that support.

Creating Viable Patient-Centered Medical Homes in Rural Areas

In the ongoing efforts to improve health care delivery and achieve better health outcomes many public policymakers are touting the use of the medical home model as a key strategy toward that goal.

Nationally, the medical home model has gained much popularity and is often regarded as a way to reduce the cost of medical care for people with chronic diseases, which accounts for 75 percent of medical care spending in the United States.[6] Many health experts also view the medical home as a way to improve the quality of care, especially for patients whose complex conditions would benefit from better care coordination. The concept of the medical home gained traction from the movement for quality improvement and increased focus on medical error reduction. Despite the extensive discussion and literature already existing on the medical home model, it is largely a theoretical concept at this point. The criteria for what a functioning medical home would entail are still being developed. Currently, there is no single consensus on what exactly a medical home is.

The Committee agrees that development of a medical home has potential for improving care coordination and outcomes. There are, however, challenges in creating a medical home model that will work equally well in urban and rural areas. The share of the elderly population that lives in rural areas is increasing and the rural elderly would stand to benefit from better care coordination and referral tracking through medical home implementation.[7] Rural residents face challenges in accessing coordinated care across the health care continuum given that they often have to travel for specialty care. In addition, rural areas face shortages of primary care clinicians who would serve as the hub of any medical home. The Committee believes that the Department of Health and Human Services (HHS) should move carefully in any design of a medical home and allow for flexibility for reimbursement to also include physician assistants and advanced practice nurses as medical home providers.

The Committee visited two States where medical homes are either already implemented or getting started. The Committee observed that when rural physicians partner with their hospital boards and administrations, they can lead a successful small-scale implementation of the model. States can direct their Medicaid funding to drive quality improvement, using the medical home as a delivery model. To ensure that rural areas can be positively affected by medical home implementation, and to minimize adverse outcomes, the Committee has outlined several recommendations. The Centers for Medicare and Medicaid Services (CMS) Medical Home Demonstration is viewed as an important opportunity to determine the impacts of medical homes and the costs of implementation. The Committee recommends that CMS Demonstration sites include rural practices in several different States so that impacts in a variety of rural communities can be observed. The Committee also recommends that Relative Value Resource Based System (RVRBS) and Current Procedural Terminology (CPT) codes be modified so that providers can be reimbursed for care coordination and other services associated with a medical home.

Serving At-Risk Children in Rural Areas

Over 900,000 out of about 70 million children who live in the United States were the victims of some form of maltreatment in 2006.[8-9] At least half a million children currently live in foster care homes to protect them from further abuse and neglect. Furthermore, a study for HHS' Assistant Secretary of Planning and Evaluation found that the number of children being removed from their homes grew much faster in rural areas than in urban areas from 1990 to 1999.[10] The Committee believes that intervention services need to be provided earlier for children who are at-risk, to prevent abuse and neglect. This is a particular concern in rural areas because programs and resources are often more limited than in urban areas and coordination of services for these children and their families can be made more difficult, given their geographic isolation.

While there are many factors that increase the risk that a child may be maltreated, poverty has consistently been linked to higher rates of maltreatment. Children in families with a lower socio-economic status are 22 times more likely to have been abused and 44 times more likely to have been neglected.[11] Rural areas consistently have higher rates of child poverty than urban areas and higher probability for adverse childhood experiences.[12] Children who have been exposed to adverse experiences are compromised in many aspects; they are at-risk for delayed intellectual, social, and emotional development. The frequency of exposure to adverse childhood experiences also affects health outcomes; the more often a child is exposed, the more likely it is that the child will be vulnerable to a number of health risks as an adult, including alcoholism and illicit drug use, depression and suicide attempts, domestic violence, liver disease, smoking, and unintended pregnancies.[13]

There are specific rural challenges in identifying children who are at-risk of being exposed to maltreatment and adverse experiences and linking them to the appropriate services in a rural community. Rural communities can be isolated by distance, so it can be more difficult to identify children who have been exposed to abuse and neglect, to find and get the children help, and to help the children to recover from the experience to minimize long-term negative impacts. This is further impacted by an overall lack of basic services and a trained workforce to administer those services. The human services delivery infrastructure and the programs to meet the needs of at-risk rural children tend to be limited; this adds to the challenges in obtaining services in rural areas that are far away. There is also less anonymity and a higher likelihood of pre-existing relationships between members of a rural community, so it can be more complicated to provide confidentiality with intervention, therapy, or recovery services and programs.

The Committee believes that it is important to incorporate proactive, prevention-based services in order to address issues before the child's development is negatively impacted and the family is "in crisis." Since a child's development can be affected in a number of situations, solutions must be comprehensive to be most effective. Thus, it is important to address the needs of the family, in addition to the needs of the child, in order to find a successful long-term solution and reduce the likelihood that the child will be removed from the home. Furthermore, it is particularly important to address young children because abuse can have long-term ramifications; children who have been abused are more likely to continue maltreatment into their future generations. By targeting young children and their families early on, with preventative strategies, rural communities can stem the cycle of maltreatment and benefit from a young population that is able to realize its full potential.

Proactive strategies, including prevention and early intervention services for young, at-risk children and families, are underfunded in many areas, perhaps overlooked by the immediate need to fund more reactive services, such as providing direct care or removing children from unsafe environments. In examining how funds are currently used, the Committee noted the success of some local leaders in rural communities who were able to maximize funding from an array of Federal, State and private sources through

collaborative service delivery models. The Committee recommends that the Secretary support and encourage additional funding to provide needed preventative services, in order to more effectively address maltreatment and abuse of children and to reduce the need for reactive services in the future. The Committee acknowledges the necessity of current reactive services and stresses that funding should not be diverted from providing such essential services. The Committee also highlights the need for local leaders in the health, human services, and education sectors to identify common goals and maximize the use of available resources to improve the well-being of at-risk children.

Collaboration and Community Leadership

During site visits to rural communities, the Committee has repeatedly seen the impact that local leadership and working partnerships can have in providing services. When communication and relationships among rural health and human services providers are strengthened, rural communities win. Partnerships enable local leaders to maximize their limited rural resources and to leverage economies of scale, in order to provide their communities greater access to quality services.

At the Committee's September meeting, Jim Krile, a Minnesotan with 20 years of experience in developing and sustaining healthy rural communities, emphasized that the human potential necessary for a community's success already exists within the community and its people. "We look at leadership as a part of the community, not at identifying certain individuals to be leaders." Krile believes that the importance of collaboration and cooperation among rural leaders is also important. "We forget that leadership is not just about individuals. It's about relationships," he explained.

The Committee continues to believe that HHS should promote more coordination among programs that serve rural areas and are administered throughout the Federal Departments by forming an inter-Departmental rural working group. The charge for this group would be to improve cross-program collaboration among Federal programs by using demonstration projects to integrate funding streams and identifying statutory and regulatory provisions that could hinder local coordination of services.

Workforce and Community Development

Rural Significance: Why the Committee Chose this Topic

Rural areas have long faced workforce challenges in filling jobs in the health and human services sectors. These jobs play a key role, not only in providing needed services to rural residents, but also in supporting the local economy. The Committee has maintained an interest in workforce issues and seeks to understand how Federal programs can help address shortages and promote training, recruitment and retention of the various health and human services professions that are needed in rural America.

The Department of Labor's (DOL's) Bureau of Labor Statistics (BLS) testified before the Committee in February of 2008 that a broad range of health and human services occupations in non-metropolitan counties are expected to grow between now and 2016. The need for personal and home care aides will increase by 50.6 percent, medical assistants by 35.4 percent, and pharmacy technicians by 32.0 percent, just to name a few.[14] Job growth also is likely to continue for these professions, as they are generally less vulnerable than other professions to international competition or outsourcing,[15] and are more resilient to economic downturns,[16] such as recession.

Rural communities face many challenges in acquiring and maintaining an adequate supply of health and human

Figure 1. Projected Percent Change in Available Jobs, by Profession, for Non-metropolitan Counties, 2006-2016
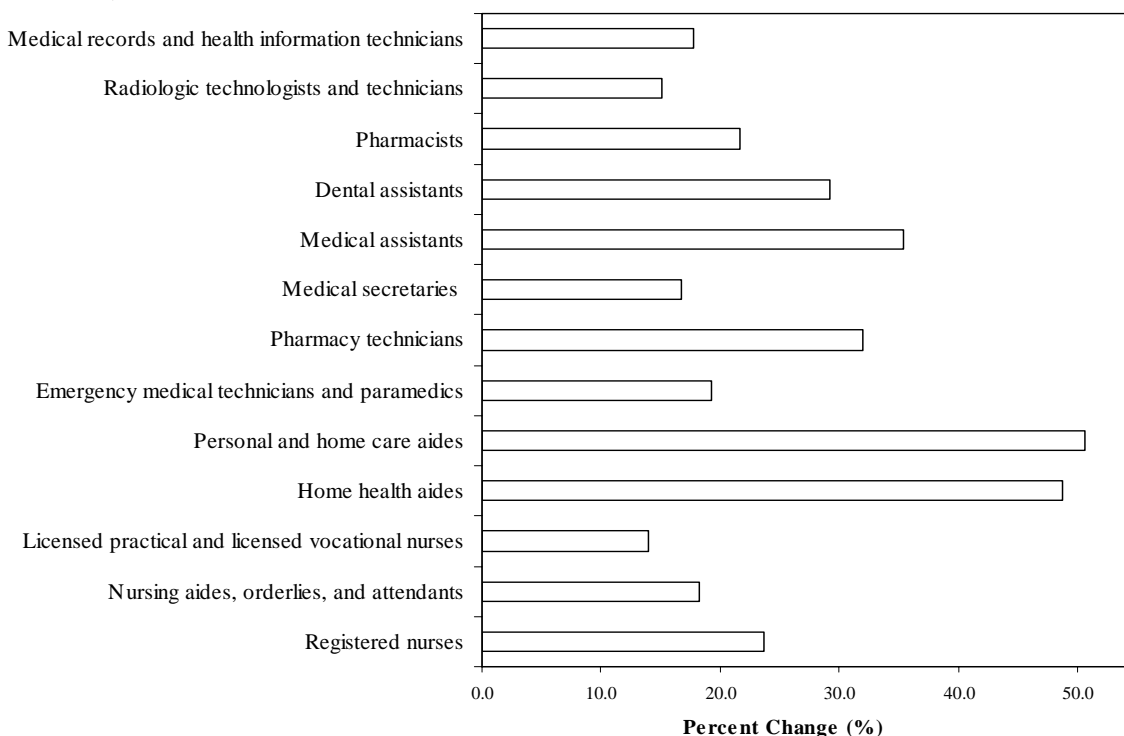
Note: Refer to the tables in Appendix A for more information.
Source: Woods, R. (February 20, 2008). "Workforce Projections." Remarks to the NACRHHS, February Meeting.

services workers; the majority of rural areas do not currently have a sufficient workforce to meet their populations' needs. Primary care physicians are much less likely to work in rural counties than in urban counties.[17] More than one-third of rural residents live in a federally designated Health Professional Shortage Area (HPSA)[18] and more rural than urban counties are designated as a mental health HPSA[19] or dental HPSA.[20] In general, counties with a primary care HPSA designation are also more likely to lack allied health resources,[21] suggesting that the overall rural health care system has workforce shortages.

Health and human services workforce development is a concern in many rural areas, due to limited accessibility and access to these services, relative to urban areas. Overall, there is a lower educational attainment for rural areas; a higher percentage of rural adults had not completed high school[22] and 15.6 percent of rural adults had completed a degree from a four-year college compared to 26.6 percent of urban adults, in 2000.[23] Rural residents must also overcome

> **Rural Training and Educational Programs**
>
> There are a number of ways to refer to schools that offer programs at the post-secondary and pre-baccalaureate level, such as associate's degrees, credentials, or certifications. Since educational options vary regionally and by State, we will use the term "community and technical colleges" throughout the chapter to refer to these programs.

a geographic barrier, because there are fewer opportunities for education and training in health and human services professions in rural communities. There are fewer post-secondary schools located in rural areas than in urban areas; there are few allopathic medical schools or dental schools, and less than a third of social work schools are in rural areas.[24]

The unemployment rate in 2002 was significantly higher for non-metropolitan workers without a high school diploma, at 8.4 percent, compared to 1.9 percent for college graduates.[25] Employers have become

Figure 2. Projected Percent Change in Available Jobs, by Sector, for Non-metropolitan Counties, 2006-2016
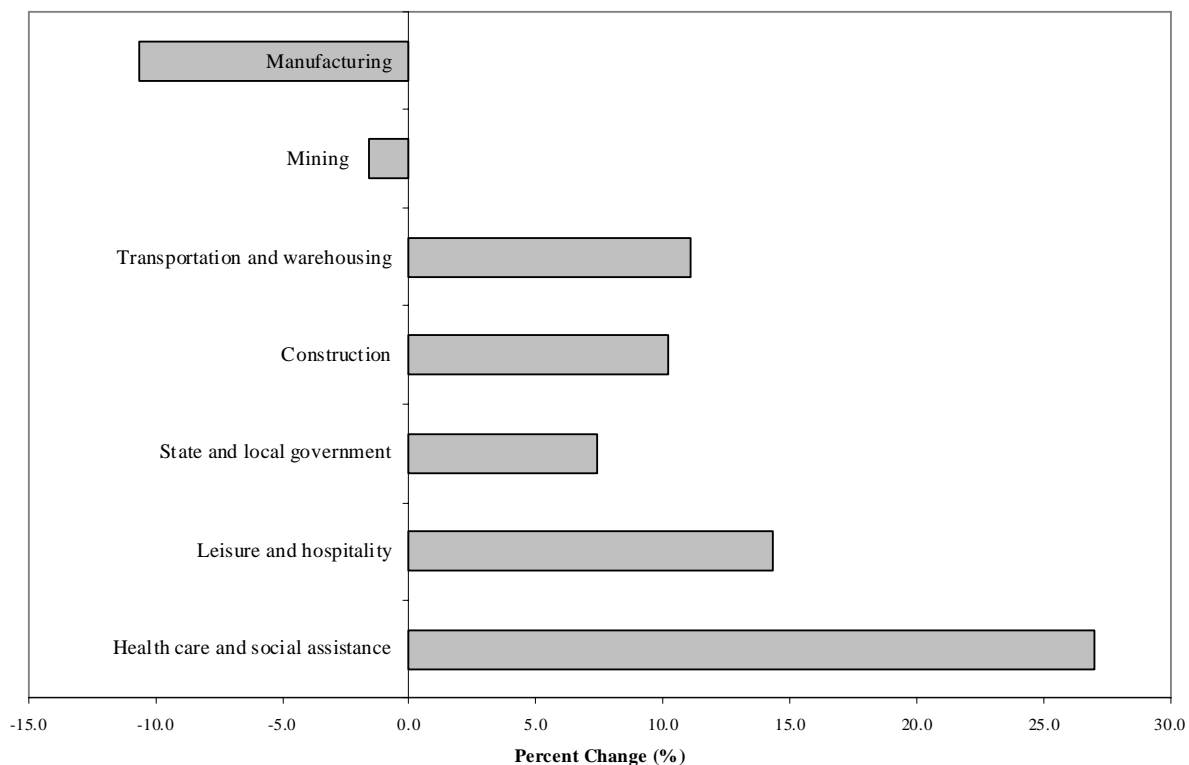
Note: Refer to the tables in Appendix A for more information.
Source: Woods, R. (February 20, 2008). "Workforce Projections." Remarks to the NACRHHS, February Meeting.

increasingly reliant on educational credentials when hiring potential employees.[26] To help residents be competitive in today's job market, rural leaders will need to improve workforce training and educational opportunities. In order to develop and maintain a qualified workforce, rural communities need the capacity and infrastructure to train, recruit and retain a sufficient health and human services workforce. By concentrating on workforce development, rural communities can simultaneously address local employment concerns and increase job opportunities.

The lack of training options in rural areas can hinder the skills and ability of local community residents in finding employment. A recent report indicates that 40 percent of rural adults work full-time, compared to 53 percent of adults nationwide.[27] As economic situations worsen, more people will qualify for income-dependent human services programs. This is likely to cause strain on the delivery of human services and increase the need for qualified human services staff in rural communities.

Investment in local health and human services can result in a healthier and more productive labor force. In turn, this can attract more businesses and industries that can generate employment opportunities.[28] When large businesses decide to move or establish a new site, the adequacy of the local health care infrastructure is often used as a factor for evaluation, to ensure that employees have access to health care.[29-30]

Studies completed through the National Center for Rural Health Works demonstrate that a rural community can gain a high return on investment with the addition of a rural primary care physician, using factors such as the creation of jobs for medical and support staff, resulting economic activity at local businesses, and additional tax revenue generated by the physician's office and employees.[32] The establishment of a human services agency can hold further economic benefits for the local economy through personal expenditures of those obtaining financial assistance from transfer payments, food stamps, or child care.[33] Ultimately, the presence of health and human services professionals in rural communities promotes economic development.

This chapter will broadly examine the rural health and human services workforce, the future of workforce development, and how workforce relates to rural community and economic development. The chapter will not focus on any single profession, except when providing specific examples; the Committee hopes this chapter will serve as a starting point, from which specific rural workforce issues can be examined in the future.

Current and Future Workforce Shortages

Studies comparing job vacancy rates in Georgia[34] and North Carolina[35] have found differences in job

Rural Health Works

The National Center for Rural Health Works, supported by the Office of Rural Health Policy, raises awareness among community residents of the importance of the health care sector to their local economy. The center develops tools that community residents can use to evaluate their health system, by measuring the economic impact of health care services and by identifying specific service needs in a community. For example, Cleveland County in Oklahoma determined that 0.25 additional jobs are created for each job in the health and human services sector, and each dollar spent is matched with another $0.66 that is expended in other sectors.[31] The center engages community residents in local health care decision-making to encourage them to plan and support the local health systems.

The National Center also shares economic impact studies done at the State and local level. The return on investment is calculated by the stimulation of local economic growth in other industries through indirect spending, such as for business purchases, and induced spending, e.g., employee's household spending.

Source: National Center for Rural Health Works. (n.d.). "National Center for Rural Health Works." Stillwater, OK. http://www.ruralhealthworks.org

vacancies for allied health and human services professions in rural and urban areas. There were more job vacancies in rural areas of North Carolina than in urban areas; in Georgia, rural hospitals reported that their job vacancies were open longer than those at urban hospitals. The studies indicate that positions are more difficult to fill in rural areas. While these studies are far from a comprehensive economic employment analysis, they do reiterate the challenges faced by some rural communities. Unfortunately, data specific to the rural workforce are very limited, particularly for allied health and human services professions, at the national, State, and local levels.[36]

The challenge facing rural communities today is not only how to meet current workforce needs but also how to address future workforce shortages. The current training and education programs in rural areas have been insufficient in developing a workforce to meet the present needs; improvement is essential to meet the projected workforce need.

Rural Opportunities for Training and Education

Health and human services training and education programs must consider the time and resources needed for both recruitment and retention efforts. To maximize resources, many rural programs target local residents, because they are more likely to stay and work there, over time. In addition, rural community leaders can identify some specific populations within their community to target for education and training opportunities. This targeting of residents helps increase retention in key employment areas.

There are many examples of rural communities that focus on bringing youth into the health and human services sectors through an education pipeline with a "grow-your-own" workforce philosophy in mind.[37] Rural areas continuously lose talented youth to urban areas that can offer more training, education, and employment opportunities. The out-migration of young adults can be minimized by actively recruiting local

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Bringing Youth into the Pipeline

Facing the out-migration of youth to urbanized areas for more job opportunities, several rural communities are designing health and human services workforce programs to target younger students.

Edgecombe Early College High School is located on the campus of Edgecombe Community College (ECC) in Rocky Mount, NC. Edgecombe County Public Schools and Edgecombe Community College worked to implement different academy programs, including one in health care, with the goal of preparing students for various associate's degrees. After completing the five-year program at ECC, students graduate with a High School Diploma and either an associate's degree or two years of university credit at a four-year institution. Tech-Prep programs, like ECC's Early College High School, combine at least two years of secondary education with two years of postsecondary education in a specific career field. Approximately 47 percent of the nation's high schools (or 7,400 high schools) offer one or more Tech-Prep programs. Nearly every community and technical college in the nation participates in a Tech-Prep consortium, as do many four-year colleges and universities.

The Bridges Career Academies and Workplace Connection in Minnesota allows students to start preparing for careers in a number of industries, including health care professions, while in high school. The Health Sciences Academy offers courses that provide a foundation for various health care professions and allow high school students to earn college credits. A regional Career Exploration Day introduces students to over 125 potential careers in high-demand professions. The program also organizes out-of-classroom learning opportunities with regional employers. During the 2007-2008 school year, over 225 students were placed in job shadows.

Sources:
Lamm, D. (June 3, 2008). Remarks to the NACRHHS, June Meeting.
Gottsch, M. (September 25, 2008). Remarks to the NACRHHS, September Meeting.

youth into health and human services education programs. These programs often mentor youth by introducing them to a variety of health and human services occupations and guiding them to take the necessary pre-requisite courses. Educational pipelines can be an effective long-term strategy because students who have grown up in rural towns are more likely than those who have grown up in urban areas to move to and work in rural areas after graduation.[38] More educational opportunities and post-secondary training options in rural areas can also reduce the need for students to move away to attend college.

Successful rural recruitment strategies may also target non-traditional students, such as women re-entering the workforce, who generally seek local employment and want to remain in the community. Due to employment instability, there is also an increasing potential to redirect workers who have been displaced from employment in other industries such as manufacturing, construction, and mining.[39] Concentrating on recruiting from the local community has economic benefits, since it is often more cost-effective than recruiting someone from outside the community. The community can save money on recruitment expenses such as relocation fees, incentive payments, sign-on bonuses, and headhunters.[40-41] Since most residents will have already established social or professional networks and roots in that rural community, they are more likely to stay, simplifying retention strategies.

Another rural workforce strategy is to train students in rural areas with future recruitment in mind, because students are more likely to work in areas that are similar to where they trained.[42] A study on family medicine residency programs with rural training tracks found that 76 percent of graduates were practicing in rural communities.[43] Stemming from this principle, there are Area Health Education Centers (AHECs) that encourage linkages between health sciences students and rural community-based organizations.[44] When health professions students have good experiences while training in rural communities, they can be favorably influenced to practice in a rural location later on.[45]

3RNet

The National Rural Recruitment and Retention Network (3RNet) was created to increase the number of health professionals practicing in rural America. The network is comprised of organizations from 49 States, the Cherokee Nation, and the Northern Mariana Islands, which encourage and assist health professionals in finding jobs in underserved rural communities. Members include State Offices of Rural Health, Primary Care Offices, Primary Care Associations, Area Health Education Centers, and other non-profit entities. 3RNet coordinates workshops, trainings, and presentations for those interested in recruiting and keeping providers in rural communities.

During Fiscal Year 2007, members of 3RNet were able to place 750 medical professionals, which included 220 family practice physicians, 65 internal medicine physicians, 50 pediatricians, 100 dentists, 80 nurse practitioners, and 80 physician assistants. 3RNet also maintains a toll-free phone line to assist health care professionals interested in serving rural America. It is estimated that 3RNet helped rural communities save up to $9 million in recruiting costs from the 750 placements.

Source: The National Rural Recruitment and Retention Network for Healthcare Professionals. (n.d.). "3RNet: Medical and Healthcare Jobs Across the Nation." LaCrosse, WI. http://www.3rnet.org

Technical and community colleges can play a key role in training important parts of the health and human services sectors. They are often more accessible and attainable for rural residents than four-year institutions because they are less expensive and more prevalent in rural areas. The current average annual tuition at community colleges, $2,361, is much lower than the average $6,185 for public, and $23,712 for private, tuition at four-year colleges and universities.[46] The ability to attain a degree close by and the length of time to degree may be appealing to those who are concerned with transportation, child care, or need to stay employed full-time while taking classes.

Two-year degrees in health and human services are a growing trend, nationally,[47] with 59 percent of new nurses and other health care workers being educated through the community college system.[48] However,

Human Services Technology Program

The Human Services Technology Program at Edgecombe Community College emphasizes real-world situations by educating human services students on topics such as the benefits and consequences of North Carolina's 2006 mental health reform legislation. The students are encouraged to complete a Health Services Cooperative Education program with local businesses. During this time, the students gain valuable work experience and learn about the educational requirements for careers they may be considering.[49] The businesses benefit from the students' working there during the program and also, later on, in being able to hire already-trained recent graduates.

The program has been relatively successful in retaining students' interest in pursuing a career in human services; 97 percent of the former students are either furthering their education or working in a human services-related field. Through connections with nearby universities, Edgecombe Community College has provided an informal career ladder for its students; 60 percent of the students continue on to a Bachelor's in Social Work degree program and at least five former graduates are currently enrolled in a Master's in Social Work degree program.

Source: Rook, A. (June 3, 2008). Remarks to the NACRHHS, June Meeting.

more than 60 percent of rural counties do not have even one allied health education program or training site.[50] More allied health training at the allied health level is needed in community colleges across the country.

Community and technical colleges can also play an important bridging role by developing clear articulated educational ladders with four-year colleges. For example, partnerships with four-year colleges and universities could allow students to apply credits earned for a two-year degree to the completion of a more advanced degree down the road. This application of credits can be especially valuable considering that a third of community college students report having to take remedial classes during their first year,[51] extending the time to completion, and the cost, of the degree. Providing more grants and loans can help offset costs or allow a student to graduate. Almost half of community college students receive some form of financial aid; 34 percent receive Federal aid in grants or loans,[52] but some students find that with the additional expense of remedial coursework, the available financial aid may run out before they are able to complete the degree.[53]

Capacity Building in Rural Communities

In order to meet the escalating health and human services workforce demands, a rural community must have sufficient resources and capacity to support the development of training and educational opportunities. As the Committee noted during site visits, in general, rural areas often face limitations in establishing the basic infrastructure needed to implement health and human services programs, such as having clinical placements, classroom and laboratory space, and technological resources. In addition, the current shortage in the rural health and human services workforce further translates into a shortage of qualified faculty to educate the new workforce. Potential faculty often can earn higher salaries in clinical fields rather than in education, making recruitment to a rural community college difficult.[54]

Considering that rural areas generally have fewer resources than urban areas, communities need to be more creative in finding innovative solutions to workforce development. Some rural areas can maximize their resources through alternative methods, such as cooperative learning, using simulation tools, techniques, or standardized patients to mimic possible patient cases. Distance learning programs, which have shown similar academic performance as traditional

classroom programs, are an important part of any workforce solution for rural communities.[55] Although these programs are more time and labor-intensive, a single qualified faculty member can instruct more students rather than be limited by classroom space and the transportation challenges that stem from long traveling distances. More than 85 percent of public post-secondary institutions offered distance education in 2005, demonstrating its feasibility.[56]

Regional Cooperative Partnerships

By developing cooperative partnerships, rural communities can maximize resources most appropriately to meet local health care and human services workforce needs. Partnerships may be tailored around training new students to enter health and human services professions. Berger Health System, a rural community hospital in Ohio, received a High-Growth Job Training Grant from the Department of Labor to implement a nursing program. The hospital provided the classroom space, clinical rotations, and an instructor while Ohio University provided the curriculum, faculty, and degree.

Partnerships can also be arranged to maximize the skills of available health care or human services professionals. The Cuyuna Regional Medical Center (CRMC), in Crosby, MN, has established partnerships with nearby institutions to jointly hire professionals to meet the local needs within their budget constraints. Through arrangements with the Minnesota Radiology Institute, the Minneapolis Heart Institute, the Cuyuna Lakes Pharmacy and others, CRMC was able to offer many additional services to its patients.

Sources:
Schauback, J. (September 25, 2008). Remarks to the NACRHHS, September meeting.
Employment and Training Administration. (April 14, 2004). "President's High Growth Job Training Initiative: Three-Year, Hospital-Based Nursing Degree at a Rural Community Hospital." Washington, D.C.: U.S. Department of Labor. http://www.doleta.gov/brg/pdf/Healthcare_BergerHealth_3yrHospitalBased Program_4.14.04.pdf

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Role of Local Leadership

Strong local leadership plays a significant role in forming cooperative partnerships that can maximize resources and capacity building in a community. Key players for these partnerships include representatives from educational institutions, clinical facilities, and workforce development boards. For local workforce, economic, and community development efforts to be successful, they must be driven by local people who represent the interests of the community.[57] The U.S. Government Accountability Office reports that individual leadership is an important factor in integrating community colleges into the workforce system.[58]

Workforce development challenges can also be addressed through a regional approach; however, any strategy needs to involve the appropriate organizations, both locally and regionally,[59] and relationships need to be formed between the health workforce, local workforce development boards, employers, and AHECs.[60]

Key Federal Programs

A number of Federal programs provide funding that can be used to develop a qualified health and human services workforce through expanded training at community or technical colleges. The Key Federal Programs for Workforce and Community Development table in Appendix B expands on each of these Federal programs. Many of the programs are authorized under Title VII and Title VIII of the Public Health Service Act, administered by HRSA's Bureau of Health Professions (BHPr). Currently, the overall funding for these programs is allocated based on the field (such as family medicine, internal medicine, pediatrics or geriatrics) or by the specific profession (such as physicians, dentists, physician assistants, or nurses).[61] Some of the programs provide funding for training programs that improve the racial and ethnic

diversity, geographic distribution, and quality of the health care workforce.[62-63]

Although there are a handful of existing programs that address the need for an adequate and qualified health and human services workforce, many of those programs are not sufficiently funded today. For example, the Nursing Scholarship Program, under Title VIII of the Public Health Service Act, awarded 172 scholarships out of 4,894 applications (only about 3.5 percent of the total applications) during Fiscal Year (FY) 2007. Across the board, there are few financial awards available to health and human services professions students who hope to work in areas of high need. More financial aid is needed for students pursuing associate's degrees, certificates, and credentials who serve or commit to serve in rural areas. Assistance can be provided through scholarships, tuition reimbursement, loans, and loan forgiveness programs. HHS workforce programs such as Title VII and VIII may offer a model to build comparable training programs in the human services sector. Another funding stream from the Administration on Children and Families (ACF) supports workforce training, through Temporary Assistance to Needy Families (TANF). These funds can be important in training displaced workers and providing them necessary skills to transition to health and human services occupations. There are workforce needs in many health and human services professions; however, existing programs, such as these, should be improved before development of new programs.

DOL's Workforce Investment Act (WIA) supports educational and training programs to improve people's skills for occupations that are in demand in that local area. Many States have chosen to address health and human services through WIA-supported programs because it is a high growth and high demand sector. Leaders in the health and human services sector have

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Advisory Committees Addressing the Rural Health Care Workforce

Interest in rural workforce issues seems to be growing among Federal Advisory Committees. In addition to the NACRHHS' focus this year, another HRSA-based advisory committee has focused on rural workforce. The Advisory Committee on Interdisciplinary, Community-Based Linkages (ACICBL), one of the four national advisory committees within HRSA's Bureau of Health Professions, is charged to provide advice and recommendations to the Secretary and to Congress and has the responsibility to address the Federal interdisciplinary, community-based training grant programs within HRSA. The members of the ACICBL believe that the overall magnitude of the health care workforce shortages has reached a critical stage of acuity across the country. Urban, suburban, and rural communities are all being adversely influenced. This year, the ACICBL devoted its eighth annual report to rural health care workforce issues. With this charge, the Committee established a number of guiding issues by first framing a vision of an ideal rural health care delivery system. As the Committee became familiar with current rural demographics and health care issues, several questions were framed that directed its investigation, guided the analysis, and informed the recommendations in its final report.

The Committee held a series of three meetings and invited testimony and two concept papers from nationally renowned experts in rural health care and workforce issues. The ACICBL concluded that there are unique implications associated with the fragile condition of the rural health care delivery system and the key workforce issues that must be addressed. The economics of the day have an impact, but steadily changing demographics in rural America over the past several years require significant changes in the way the rural health workforce is educated and ultimately provides care.

Entitled *Health Care Workforce Issues in Rural America*, the eighth annual report highlights the critical importance of culturally competent, community-based workforce training programs that ensure accessibility, affordability, and availability to quality health care for residents living in rural communities in the United States. This work will require changes to the way that training has traditionally been provided, especially in rural communities. The Committee's report is expected to be released early in 2009.

Source: Personal Communication, Health Resources and Services Administration, Bureau of Health Professions. (December 18, 2008).

realized the importance of partnering with their local Workforce Development Boards (WDBs) and Workforce Investment Boards (WIBs).

Summary

The Committee's research over the past several years has demonstrated that there are many factors which have set up a perfect storm for a rural workforce crisis. The rural workforce shortage ultimately affects all other health and human services delivery, as is reflected in each chapter of this report.

Health and human services workforce development is interconnected with community development. In rural communities, this relationship is a self-reinforcing cycle: a strong health and human services presence contributes to the overall well-being of a community and health of the residents, just as economically stable and strong, viable communities are more effective in recruiting and retaining health and human services professionals.

The Committee has noted over the years that strong local leadership development programs can provide the training needed for rural residents to develop successful collaborations in rural communities. Collaboration needs to occur at the community level between appropriate stakeholders, which may include community and technical colleges, local workforce boards, local employers, and the local government. Ultimately, workforce development would be a shared responsibility between the Federal, State, and local government across health and human services, labor, and education to provide an adequate health and human services workforce for each community. The Committee believes that Federal programs at HHS and DOL need to be designed to foster and support this collaboration.

Recommendations

- The Secretary should develop data tracking systems for the health and human services workforce. Workforce data should be periodically collected and analyzed so that rural areas can identify their current and projected workforce needs. The workforce data and analysis should be disseminated in a timely manner to employers, Workforce Development Boards, training centers, and educational institutions, so that they may better predict workforce oversupplies and shortages. Based on this data, the Secretary should target resources and develop training programs for appropriate health and human services professions in "high-need" geographic areas.

- The Secretary should work with Congress to secure additional funding for the allied health training programs within Title VII of the Public Health Service Act and expand competitive opportunities for two-year educational and training programs for health and human services professions that are identified to have high vacancy rates, high demand, and high education and training costs associated with higher faculty salaries, laboratory fees, and clinical space.

- The Secretary should work with Congress to amend the Title VII authority to allow greater discretion over how to allocate funding for different health professional needs over multi-year periods. The Committee believes that the flexibility will allow specific targeting of resources to reflect current and future projected needs.

- The Secretary should work with Congress to secure additional funding for the Nursing Loan and Nursing Scholarship programs under Title VIII of the Public Health Service Act, which have been identified to have significant public interest and support, so that these existing nursing programs can better address current workforce shortages.

- The Secretary should use Section 301 authority under the Public Health Service Act to support demonstration grants for creative, community-based workforce training programs that address local geographical and financial constraints and are targeted towards rural communities through Critical Access Hospitals, Rural Health Clinics, and Federally Qualified Health Centers. These demonstration projects should be evaluated to determine effectiveness and return on investment.

Creating Viable Patient-Centered Medical Homes in Rural Areas

Rural Significance: Why the Committee Chose this Topic

As discussions to reform the health care system continue to gain traction, the development of a patient-centered medical home for all patients has been widely promoted by many policy experts. This concept, in which a team of providers works together to coordinate a patient's care, holds great potential for patients, particularly for rural residents who face significant, unique challenges in accessing comprehensive health care services. The Committee seeks to ensure that rural considerations are taken into account in the ongoing discussion about medical home.

Medical home is a term that represents a combination of care management, primary care, quality improvement, information technology and social work. The concept emphasizes sharing of information among providers with a goal of improving quality of care and health outcomes. The idea of a medical home surfaced in the literature more than four decades ago and has since been extensively written about; however, the concept is still evolving, and large-scale implementation remains a challenge. Demonstration projects on various scales have delivered care in a medical home model to limited population groups thus far.

The Committee believes that this concept has great value for rural America and has identified important issues that specifically pertain to rural areas. Site visits to rural areas in North Carolina and Minnesota enabled the Committee to observe medical home implementation in rural communities and to discuss the operation of the model with providers and State health officials.

Community Care of North Carolina

North Carolina administers one of the first State-wide efforts of medical home implementation within its Medicaid program. Community Care of North Carolina (CCNC) began in 1998 as a quality improvement demonstration project to advance primary care case management for North Carolina Medicaid enrollees. The demonstration evolved into regional systems of care that currently serve more than 800,000 patients across the State in both rural and urban areas.

Building on strong local networks of physicians at the county level, larger groups of physicians united to form relationships that would promote local empowerment and materialize into an organizational structure.[64] Case managers work with primary care providers to assist patients in managing chronic conditions, such as diabetes, asthma, and heart failure.

North Carolina Medicaid compensates physicians at a rate of $2.50 per member per month, for each Medicaid patient enrolled in the program. In addition, Medicaid compensates regional networks, the entities that employ the case managers, at a rate of $3.00 per member per month. CCNC has just launched an enhanced care management program for aged, blind, and disabled Medicaid recipients, under which networks will receive an additional $5 per member per month payment, and physicians will receive an additional $2.50 per member per month payment, to help support the care needs of these more complex and costly patients.

Source: Willson, C. (June 3, 2008). "Evolution of the Primary Care Medical Home in Eastern NC." Remarks to the NACRHHS, June Meeting.

Patient-Centered Medical Home: A Quality Initiative

Leading advocates of the medical home model believe that care associated with a medical home should be patient-centered, accessible, continuous, comprehensive (whole patient), integrated, compassionate, and culturally effective.[65] The concept was first developed and published by the American Academy of Pediatrics (AAP) in 1967.[66] The Health Resources and Services Administration's (HRSA's) Maternal and Child Health Bureau (MCHB) partnered with AAP to continue to develop and implement the concept. In fact, a number of HRSA's programs in rural and urban areas have embodied the principles of a medical home in their approaches to caring for patients (Table 1).

Medical Home Infrastructure

While the concept of the patient-centered medical home is still being refined, common structural components can be observed in demonstration projects that have been established by public and private health care payers. Case management is a defining element of the model. Although there is no single standard or universal definition of a medical home, most of the models and prototypes focus on some common elements. Medical homes operate on a team-based structure led by a primary care provider and supported by case managers, specialists, pharmacists, and other practitioners and providers. Primary care providers may include physicians, physician assistants, and advanced practice nurses. Case managers may have a wide range of educational backgrounds and can include nurses, social workers, and other trained individuals to help the patient with coordination of care and implementation of chronic care management plans. One of their primary duties is to connect patients and providers, although some variation in day-to-day roles and responsibilities will vary from one demonstration project to another. Patients communicate with their provider or case manager through commonplace technologies, such as phone and email.

In addition to enhanced communication between patients and providers, another key component of the medical home is continuous care coordination between

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Lakewood Health System

Lakewood Health System near Staples, MN is a rural hospital that is ahead of the public policy curve when it comes to incorporating the medical home model. At the urging of one physician who saw the model primarily as a better way to provide coordinated care, Lakewood began its Medical Home program in August of 2008. Guided by the "Joint Principles of the Patient-Centered Medical Home,"[67] Lakewood's Medical Director, Dr. John Halfen, pushed for the initiative. Lakewood is implementing the model without additional Federal or State funding—this initiative is their effort to improve quality of care, increase patient safety, reduce the health care costs associated with chronic conditions, and ultimately gain a competitive advantage through patient satisfaction.

The support of Lakewood's administration and hospital board has been essential in moving forward with medical home implementation, allowing Lakewood physicians to provide medical home care to more than 250 patients. To enroll in the Lakewood Medical Home program, patients may qualify by meeting one of the criteria, including multiple diagnoses (three or more), multiple medications (four or more), chronic illness, or a physician identifying a patient as a "good candidate."

Lakewood officials hope to eventually use their electronic health record system to identify additional patients who are eligible. Once enrolled, patients continue to see their regular doctor and have additional access to the RN Medical Home Coordinator. This Coordinator sends reminders and educational materials to enrolled patients. Physicians are responsible for coordinating referrals and specialty care that patients receive. Lakewood Health System estimates that the programs startup costs were approximately $200,000 and will be $100,000 annually in future years.

Source: Halfen, J. (September 25, 2008). "LHS Medical Home." Remarks to the NACRHHS, September Meeting.

Table 1. Health Resources and Services Administration's Medical Home Initiatives		
HRSA	Program	Description
Bureau of Primary Health Care	Health Centers	Health Centers are community-based and patient-directed orgaanizations that provide the types of care and services that fulfill many componetns of a medical home. For more than 40 years, HRSA-supported Health Centers have provided comprehensive, culturally-competent, quality primary health care services to medically underserved communities and vulnerable populations.[68]
Maternal and Child Health Bureau (MCHB): Division of Services for Children with Special Health Care Needs	Medical Home for Children with Special Needs	MCHB has supported implementation of the medical home concept for children with special health care needs for over two decades through grant, quality improvement, and measurement initiatives. Medical home is now central to the MCHB mission for the entire MCH population.[69]
Center for Quality	Health Disparities Collaboratives	In the late 1990s, the Collaboratives began as a quality initiative aimed at improving the quality of health care and eliminating health disparities. The Collaboratives encourage the evolution and greater adoption of a comprehensive medical home, and the related systems and support infrastructure for continuous quality improvement.[70]
Center for Quality and Healthcare Systems Bureau's Office of Pharmacy Affairs	Patient Safety & Clinical Pharmacy Services Collaborative	By training organizations to coordinate services for their patients, this Collaborative has goals of improving health outcomes, reducing adverse events, and improving patient safety. This 18-month initiative began in 2008.[71]
Office of Rural Health Policy	Delta Health Initiative (DHI)	Two aims of the program are to address the health needs of the Mississippi Delta region by increasing access to care and health education. In 2008, the grant began to support Health Centers and hospitals in the Delta region to reduce emergency department use by providing medical home-type care to patients.[72]

members of the health care team. This includes referral tracking, the documentation and tracking of the handoff of care from local providers to referred specialists and then back to local providers, which is used to improve the quality of care provided. This process is especially relevant for rural practices, as fewer specialists work in rural areas and the geographic distances can make patient care coordination more challenging. Centralized records, management of chronic conditions, and reporting and quality improvement measurements are other commonly incorporated components in a medical home model. There are many components to the medical home model; however, it is not an all-or-nothing proposition. In some situations, transitional implementation toward an ideal model over time could make it more feasible to implement.

The Committee has found that electronic health records (EHRs) and other health information technology (HIT)

are not essential initial components of a medical home. However, a comprehensive understanding of a patient's health history is necessary for providing high quality care. EHRs can enhance the medical home because they facilitate providers' access to a patient's health history and allow for better coordination of a patient's care based on that information. In addition, population health may benefit from EHR implementation because non-identifying, disease-specific data can be generated and analyzed so that a community's providers can respond to community needs. In practice, the Committee has learned that inclusion of HIT and EHRs is not necessary at the beginning stage of a medical home implementation. During the June 2008 site visit, administrators in North Carolina said they focused first on establishing basic components of the medical home. It has been 10 years since North Carolina developed its Community Care Networks and they have yet to require an EHR or rigidly prescribe any IT

requirements. Because most rural practices do not already have the necessary HIT infrastructure, this flexibility may be the most realistic option for many rural health provider groups interested in transitioning to a medical home model.

Expected Outcomes

Many of the potential advantages of medical home implementation would accrue to anyone seeking health care, not just rural patients and providers. Medical home implementation has the potential to improve quality and performance in health care.[73] Implementation of the medical home could make comprehensive care more efficient, less costly in the long-term, and allow for more preventative services. Proper care coordination should also reduce the number of diagnoses lost to follow-up, adverse drug interactions caused by polypharmacy from multiple providers or patients receiving conflicting information from multiple providers. In addition, medical home implementation may result in patients being better able to understand and follow medical instructions received and to schedule follow-up visits in a timely manner.

The Committee emphasizes that cost-savings should not be expected as an immediate outcome. An overemphasis on early cost savings could serve as a barrier to ideal practice redesign. However, medical home implementation does have the potential to reduce costs in the long-term for the health care system by concentrating on preventative care and better health

outcomes.[74] Preventative care will be provided with the aim of minimizing the future development of more serious or more costly ailments, creating less strain on the health care system. Cost-savings may take longer to realize in rural areas with a disproportionately high number of disadvantaged populations, such as the elderly, those with chronic diseases or those who are living in poverty. This is because reducing service deficits for these patient populations may initially require a higher level of care.[77]

The primary question facing policymakers is how a medical home system would be structured and compensated. Several current demonstrations are aiming for budget neutrality, meaning that within the defined demonstration period, medical home implementation must produce sufficient savings to the payer to offset the additional costs for care management. The Committee believes that savings should be a longer-term goal because the time it takes to realize it is dependent on where and how the model is implemented. On the individual practice level, increased start-up costs are always a concern in small or low-volume practices, a model which dominates the rural landscape.

Implementation to Date

The considerable attention to the medical home model at all levels of health care has led to the development of a number of projects demonstrating variations on the model.

Cost Savings from Medical Home Implementation

Whether cost savings will accrue from medical home implementation will vary depending on the patient population, services provided, and diseases targeted. One study of Community Care Plan of North Carolina, an early medical home implementation effort for the North Carolina Medicaid population, reports cost savings from the implementation of chronic care management and other medical home components.[75] Of particular importance for rural communities, medical home efforts have reduced duplication, strengthened human services connections, and enhanced the quality of care for the Medicaid population. Networks of providers have focused on evidence-based practices and have experienced success in assisting patients in better managing conditions such as diabetes, asthma, and heart failure. Patient education and training help patients adopt best practices and connect with community resources to help patients achieve better health outcomes. However, many health experts caution against using near-term cost savings as a measure of the model's success and claim that "the medical home may be best served by promising *value* rather than near-term cost savings."[76]

Pharmacy Home

Rural pharmacists in several States have started to take a more active role in managing a patient's medications to increase patient safety. In North Carolina, Community Care of North Carolina leaders recognized that patients with an increased number of providers and an increased number of prescriptions were more at-risk to experience drug interactions. This prompted them to develop a pharmacy home program in which patients who were given 24 or more medications over three months, or saw three or more providers over six months, are eligible to enroll. In Minnesota, Lakewood Health System's Medical Home has adopted a similar program. Patients with 10 or more medications are referred to the hospital's pharmacist for Medication Therapy Management. These cognitive pharmacy services are covered by Medicare Part D and Minnesota's General Assistance Medical Care.

Sources:
Simmons-Kornegay, T. (June 3, 2008). "Network Pharmacist Program." Remarks to the NACRHHS, June Meeting.
Moriak, J. (September 25, 2008). "Medication Therapy Management." Remarks to the NACRHHS, September Meeting.

Several provider groups have incorporated pieces of the model into their practice. To make it work, several States with rural populations, including Minnesota, Pennsylvania, and Vermont, now use a blend of public and private funding to compensate providers for coordinating patients' care.

In addition to State-level initiatives, the medical home model is being explored at the Federal level. The Tax Relief and Health Care Act of 2006 (TRHCA) authorized Medicare to establish a Medical Home Demonstration program. This demonstration must include physician practices of varying sizes serving metropolitan, rural, and underserved areas.[78] The original funding appropriated to the Secretary for the project was $10,000,000 and the demonstration was expanded by the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), providing additional funding in the amount of $100,000,000 toward the project.[79-80] The expansion beyond the original demonstration may only occur if the demonstration can improve the quality of patient care without increasing spending or if there is reduction of spending without decreasing the quality of patient care.

How the Medical Home Can Benefit Rural America

One of the Committee's frequent findings has been that existing components of health and human services systems do not relate effectively to one another,

share information about patients, or coordinate their services. The Committee has looked for effective ways to build an infrastructure necessary to achieve the coordination of services that will lead to better efficiency and higher quality of care. The need for integration of services among communities and programs was cited in the Committee's 2008 report to the Secretary. The Committee believes that adopting the medical home model may advance such coordination.

Medicare Medical Home Demonstration

In early 2009, eligible physician practices in participating selected States are scheduled to begin applying for the Medicare Medical Home Demonstration. Physician eligibility is limited to board certified primary care physicians and some board certified specialists. Medicare Fee for Service beneficiaries with at least one eligible chronic condition are eligible for medical home care under the demonstration. Practices that can meet the first-tier standards will become certified to receive monthly payments for each Medicare Fee for Service beneficiary to whom they provide medical home-type care. These values were established by the Relative Value Scale Update Committee and are based on the complexity of care provided to patients. Submission of data to qualify for the two tiers of medical home certification in the demonstration will occur through the National Committee for Quality Assurance's (NCQA's) Physician Practice Connections-Patient Centered Medical Home (PPC-PCMH) survey tool, as modified for the Medicare demonstration. The demonstration and payment period will run for a three-year period. It is expected that the demonstration will begin on or about January 2010.[81]

Managing Specialty Referrals a Key Advantage

Medical specialists practice primarily in urban areas; therefore, rural health care providers often must refer their patients who need specialists to tertiary hospitals, so those patients must travel to distant urban areas for specialized care. The geographic handoff of care is one of the realities of rural practice and the lack of coordination when it occurs presents one of the biggest challenges in terms of assuring continuity of care. Without effective coordination of patient and treatment information, by both the primary care provider and the specialist, the patient may experience delays in receiving proper treatment, which can often result in additional complications, poorer health outcomes, and increased costs. The medical home model can strengthen relationships and facilitate coordination and information sharing between primary care providers and specialists.

As the medical home concept develops, policymakers and providers should remember the importance of managing the care handoff for rural patients. Emphasis should be placed on how the sharing of information between local primary care providers and distant specialists will occur in practice. There are many factors to consider. When patients are discharged from tertiary hospitals and return home to rural areas, their discharge plans need to be communicated to the local provider for the handoff of care to be effective. For example, with post-operative follow-up, discussions need to occur between the local primary care providers and surgeon specialists. If a local primary care provider could counsel the patient through rehabilitation and physical therapy, this can save the patient from the necessity of traveling back and forth to a distant surgeon specialist's office. The medical model also can minimize transportation-related access problems for rural patients by scheduling multiple referrals and appointments into a comprehensive medical visit using care coordination.

Rural America has a larger share of the nation's geriatric population; in 2004, 15.0 percent of non-metropolitan residents were 65 or older, compared to 11.7 percent of metropolitan residents. This difference is expected to increase, as rural elderly "age in place" and others move to rural retirement destinations.[83] This statistic is significant for rural areas because elderly patients tend to require more services, and are more likely to be disabled or have one or more chronic diseases for which care is not well coordinated.[84] The additional diagnoses often require different specialists, and as a result, care for an elderly patient is more likely to be fragmented.[85] Thus, coordinating care for rural America's elderly citizens could positively impact their health and lower their health care costs.[86]

PACE Embodies Medical Home Concept for Frail Elderly

The Program of All-Inclusive Care for the Elderly (PACE) is an example of a viable long-term care model of a medical home for those over age 55.[82] PACE organizations serve nursing home-eligible patients with the idea of keeping them in a home-based setting. These organizations use a team approach to provide a full range of care to enrollees, including primary care, social services, restorative therapies, personal care and supportive services, nutritional counseling, recreational therapy, transportation, and meals. PACE is an optional benefit under both Medicare and Medicaid; PACE teams receive a per-enrollee fee each month for services they provide.

The first PACE programs began in 1990, and PACE had been largely an urban-based model. In 2003, ORHP awarded a one-year contract to the National PACE Association that focused on providing technical assistance on the PACE model to rural communities. The purpose of the contract was to determine the rural interest in the PACE model, determine the viability of PACE in rural areas, and provide technical assistance to interested rural communities on ways to develop and implement a PACE site. The program generated great interest. Congress provided funding to the Centers for Medicare and Medicaid Services (CMS) for the Rural PACE Provider Grant Program. In 2006, CMS provided $500,000 to up to 15 organizations for rural PACE expansion, which provided start-up funding for the development of PACE sites that serve rural residents.

Source: Personal Communication, National PACE Association. (November 2008).

Building the Rural Health Care Workforce

In addition to benefiting patients, the rural health care workforce could also be helped by medical home implementation. Improved relationships and communication between staff could make care coordination and the use of health care teams more manageable. A stronger team environment can give primary care providers greater rewards and job satisfaction. This effect has the potential to improve retention and recruitment efforts in rural areas and, in turn, increase community development (further addressed in the Workforce and Community Development chapter).

Provisions for Rural Implementation

The Committee's 2008 report, which summarized the last 20 years of key developments in rural health care, documented that the geographic, cultural, and economic dimensions of rural areas call for health care approaches specifically tailored to each communities' needs. It is important that any State or national medical home initiative take into account such rural-urban and regional differences and seek input from rural practitioners during the planning and implementation stages, so as not to unintentionally harm rural practices or limit access to rural patients. For example, the Committee suggests that CMS and NCQA consult with a variety of rural experts to ensure that the criteria and performance measures used in the CMS Medical Home Demonstration and the final NCQA medical home definition are appropriate and relevant for rural practices.

Small Practices: Lack of Capacity and Need for Support

The lower patient volume of rural practices can be associated with many of their challenges. Most small practices currently lack the personnel, technology

Geisinger Health System Implements a Medical Home Model for Its Patients

Geisinger Health System, an integrated delivery system that operates many of its clinics in the rural areas of central and northeastern Pennsylvania, is offering a version of a medical home through its Personal Health Navigator program.[87]

In this program, patients are given increased access to primary and specialty care, a nurse care coordinator, and a personal health navigator who they can rely on to respond to their health questions. Patients' health information is maintained in their electronic health record system.

Geisinger has created incentives for providers by providing monthly payments to physicians for expanding the scope of their practice, stipends to support additional infrastructure and staff, and performance-based payments to those who meet quality measures.

infrastructure, space, capital, and purchasing efficiency to meet all of the medical home requirements currently being proposed by NCQA.[88] Depending on the requirements such practices would need to meet in order to be considered a medical home, significant upfront resources would need to be provided for HIT. The total incremental cost may be similar for rural and urban providers, but the per-patient costs will be higher for small volume practices. For example, in rural areas, there are a smaller number of patients and providers at each facility, so rural practices would incur higher costs per patient when the purchase of expensive equipment is involved, such as the hardware needed by an EHR system. High implementation costs of EHR implementation could be detrimental for many rural practices if an EHR system became a qualifying factor, because most rural practices lack information technology infrastructure.

Creative Adaptation and Workforce

As a practical matter, the medical home concept can be implemented incrementally, transforming and gradually supplementing the existing rural health infrastructure.

The Committee believes that States offer the best setting to test this model. As the Committee saw during site visits to Minnesota and North Carolina, there are different ways to implement medical home. States will need to identify and implement creative practices to ensure the model works in rural areas. The initial focus in making the transition should be on building relationships between networks of providers and all members of the health care team, not on credentialing. Credentialing will eventually play an important role in rewarding providers for the quality and complexity of care they provide, but it should not be a barrier to practices in building a medical home workforce. "Virtual" medical homes that rely on external team members could be one example of how rural practices could creatively adapt to geographic challenges and strains on the workforce supply. There is also potential for new categories of health care workers to emerge. It is important that States recognize rural workforce limitations and allow flexible and creative use of human capital. Investment in the rural health care workforce can help small practices transition to the medical home model.

Entities articulating the medical home idea and States currently implementing it need to recognize that advanced practice nurses and physician assistants can play a key role. Many associations, such as NCQA, have established best-case standards asserting that a medical home be led by a board-certified physician. Physician workforce shortages in many rural communities have left physician assistants and advanced practice nurses as the sole primary care providers there. The patients served by physician assistants and advanced practice nurses should not be excluded from receiving the benefits of a medical home. Therefore, it is essential that CMS, NCQA, and States develop a definition of a primary care provider that includes health care providers, other than primary care physicians, who are currently providing a similar level of care.

Payment Considerations for Medical Homes

A fundamental challenge to medical home implementation is that the current payment structures are not designed for medical home reimbursement. Current payment is tied to procedures without incentive to provide care coordination; there is no differential payment for providers who coordinate care or better manage chronic conditions.

Minnesota Health Reform

Health care home* legislation was passed in Minnesota, as part of a larger health reform package, in May 2008. The legislation created a program where people with complex conditions will be encouraged to select certified health care homes as their providers. Health care homes will be market-wide and available to enrollees of State health care programs, private health plans (HMOs), and to State employees. The legislation also requires the development of standards for certifying health care homes that include HIT use and patient registries. Minnesota also plans to provide per-person care coordination payments and quality incentive payments to participating providers. Of particular importance for rural areas, the legislation specified that certified health care homes are to be led by "personal clinicians," which can include physicians, physician assistants, and advance practice nurses. A workforce study, due in January 2009, will explore licensing and regulatory changes to ensure full utilization of all licensed health care professionals in the health care home model.

*Minnesota uses the term "health care home" in legislation. For the purposes of this report, we treat it synonymously with "medical home."

Source: Leitz, S. (September 24, 2008). "Health Reform in Minnesota: Overview and Health Care Homes." Remarks to the NACRHHS, September Meeting.

> **Community Paramedic Program**
>
> The medical home model is based on patient-centered care. In some cases, that care begins with emergency medical services. No matter how healthy a population is, there will always be a need for emergent care. It is estimated that 46.7 million Americans cannot access a Level I or II trauma center within an hour, and many of these people live in rural areas.[89]
>
> It is important to take emergency services into account when considering changes to the health care system. Just as advanced practice nurses and physician assistants are the only health care providers in many rural areas, the paramedic may be the only health care provider in some rural areas. While emergency services do not usually require a constant level of full staffing in rural areas, it is necessary to have the appropriate staff available when the need arises. With additional training, a paramedic can assist in delivering non-emergent health care services to rural Americans.
>
> The Community Paramedic pilot project in Minnesota encourages innovative use of the workforce by providing opportunities to cross-train professionals. The community paramedic concept grows out of the need for health care services in rural America, and the need to reduce the stand-by cost for the emergency medical services, and the conviction that rural areas need to use this trained workforce. Flexible and creative uses of human capital are likely to emerge, due to rural workforce shortages. The Committee recognizes that there are issues to be resolved with respect to the Community Paramedic program but believes that it is worth further study.
>
> *Source*: Wilcox, M. (September 24, 2008). "Community Paramedic." Remarks to the NACRHHS, September Meeting.

There has been some conceptual work on how medical home payment systems could work.[90] States will have an important role in the development of payment systems for care coordination because medical home implementation may likely expand from the demonstration stage at a regional level, through State Medicaid programs. While it is too early to specify which medical home components a reformed health care system would cover, the Committee notes that North Carolina has constructively led the way with its program by explicitly providing payments for case management and record-keeping functions while, at the same time, holding its initial focus on building relationships with individual practices in order to see improvements in quality care and health outcomes.

In order to account for rural providers, a payment system could involve the following components:

- A structure that adequately considers a fee-for-service component, a per-patient care coordination component, and a performance-based component.[91]
- Risk adjustment for performance-based components to account for case-mix differences, eliminating reasons that cause providers to turn away Medicaid, Medicare, or chronic disease patients; and, risk adjustment for per-patient capitation rates.
- A method to account for rural practices' operating expenses, because lower volume rural practices incur higher costs per patient when implementing new systems.
- Reinvestment of a portion of any yielded cost savings in the health care system as an incentive to the providers; otherwise, overall savings to a payer could represent net revenue loss to the delivery system, which would adversely affect financial incentives for transitioning to a medical home.
- Payments to practices that act as medical homes for patients. A range of primary care providers, case managers, and specialists who coordinate chronic care management (e.g., cardiologists or endocrinologists) who can provide care coordination and other medical home services should be eligible to operate within the model. With the current shortages of providers in rural America, this flexibility is important to ensure access to quality health care.
- Payments related to quality, based partly on patient outcomes, to keep providers focused

on the model's patient-centered objectives. In designing payments based on rewards and outcomes, CMS and other payers need to consider the statistical problem of rural providers having too few data points to accurately represent true performance. This can sometimes prevent small, rural providers from participating fully in reporting initiatives.

Summary

Medical home is an important model of care for rural practices because its patient-centered approach and focus on quality improvement could yield many benefits to rural patients, especially through case management and improved care coordination. Improving the handoff of care between primary care providers and specialists would enhance the care rural patients currently receive. Implementation could also yield benefits to the rural primary care workforce. Therefore, it is important that rural stakeholders ensure that the medical home model is viable in rural areas, not just in urban and suburban areas.

As the medical home model is currently proposed, implementation will not take place in rural practices without challenges. Specific rural complications include information technology limitations and a limited workforce. To aid rural providers with this transition, the Committee believes that HHS should create incentives to promote HIT adoption for rural practices. These can be created within the payment system or through new or existing grant programs, such as the Critical Access Hospital-Health Information Technology Network Program (CAHHIT) and the Small Rural Hospital Improvement Program (SHIP). Technical assistance should be provided with the resources for HIT adoption, to ensure successful implementation.

The Committee believes that the viability of the medical home model in rural communities depends on an honest acknowledgement of physician availability. The physician specialist may be the dominant model; however, the Committee believes that a broader definition of primary care is necessary to accommodate the realities of rural practice. Nurse practitioners, other advanced practice nurses, as well as physician assistants, should be able to serve as medical home providers.

Because the model is still in early stages of widespread implementation, now is an important time for States to prepare rural providers and practices to be a part of the medical home model. The Committee believes that the Federal government should support State Medicaid and State Children's Health Insurance Plan (SCHIP) waivers for demonstrations that focus on creating medical homes for enrollees. The Committee encourages States to develop the concept with a view towards achieving a care model in which patient-provider relationships are strengthened and where patients benefit from case management.

Additionally, the Committee believes that CMS and NCQA should retain and refine their tiered certification systems. The definitions and benchmarks that are being developed by CMS for the Medicare Medical Home Demonstration should be examined to determine which are essential to providing quality care through a medical home and which may be adapted for use in rural areas for optimum implementation. CMS should adapt its quality of care goals to make them usable in rural practices.

The Committee believes that policymakers should not focus on cost reductions in planning and evaluating the medical home idea. Medical home implementation may not yield near-term cost savings. The Committee believes that HHS medical home demonstrations should not utilize near-term cost savings as a fundamental measurement of the model's success, to avoid jeopardizing the intent to improve patient outcomes. Demonstrations should continue to draw comparisons to a baseline year, prior to program implementation.[92] By taking these steps, HHS can help to ensure that the medical home model is viable for practices of all sizes and in all parts of the country.

The Committee believes that CMS should ensure coordination of their medical home demonstrations with ongoing initiatives related to pay-for-performance,

such as the Medicare Physician Quality Reporting Initiative and outpatient quality performance measure submission. It is essential for HHS to continue support of HIT adoption through ongoing policy activities via the National Coordinator's Office for HIT, in addition to providing funding for the grant programs that support HIT-related activities administered by HRSA, the Agency for Health Care Research and Quality and the National Institutes of Health's National Library of Medicine.

Recommendations

As HHS deliberates on how to promote widespread adoption of medical home principles, the Committee would like to offer the following considerations regarding rural practices.

Recommendations related to the CMS Medicare Medical Home Demonstration Project:

- The Committee recommends that the Secretary ensure that an appropriate number of rural practices, in each of the participating States, are selected for the Medicare Medical Home Demonstration for comparison with one another and with urban practices. The Committee recommends that these sites be located in varying regions of the country, to account for regional differences.
- CMS should include physician assistants and advanced practice nurses as primary care providers, for reimbursement purposes, in the Medicare Medical Home Demonstration project and in any future medical home implementation projects.
- CMS should ensure that the criteria and measures used for the Medicare Medical Home Demonstration are appropriate and relevant for rural practices. The Secretary should work with NCQA to bring their guidelines into the same framework.

Other Recommendations related to CMS:

- CMS should work with the American Medical Association to develop Current Procedural Terminology (CPT) codes that describe the case management and coordination required for medical homes. The CPT codes should be priced so that Medicare and other payers can support implementation. CMS should also revise the RVRBS values to reflect billing under a medical home model.
- The Secretary should clearly identify for the States which CMS Medicaid waiver authorities are available to support medical home demonstrations at the State level.
- The Secretary should use Medicaid Transformation grants and Healthier U.S. grants to promote medical home implementation in rural areas.

Recommendations related to HRSA:

- The Secretary should reauthorize and support funding for the Healthy Communities Access Program with revisions to support projects that focus on development and implementation of medical home components, e.g., incorporation of HIT and EHRs, chronic care management, medication management, etc.
- The Secretary should use existing Rural Health Care Services Outreach and Rural Health Network Development program grants to promote the medical home model in rural communities and use funding from these demonstrations to inform policymakers in developing medical home standards and regulations that take into account rural practice considerations.

Serving At-Risk Children in Rural Areas

Rural Significance: Why the Committee Chose this Topic

Each year about half a million children across the country reside in foster care,[93] and the Administration on Children and Families (ACF) estimates that just under one million children experienced maltreatment in 2006. Maltreatment can present through many different ways and it can be a significant problem for children who experience it. At its worst, child maltreatment can cause death; the overall rate of child fatalities, due to maltreatment, was 2.04 deaths per 100,000 children and more than 78 percent of these children were younger than four years old.[94] A study found that the number of children being removed from their homes grew much faster in rural areas than in urban areas from 1990 to 1999.[95] Linking children to appropriate services is an issue in both rural and urban areas; however, services are much more difficult to access for those in rural communities, given farther distances, geographic isolation, and a shortage of trained professionals to provide these services.

There is a correlation between the number of categories of adverse experiences a child is exposed to and the number of risk factors developed, in the future, for the leading causes of death in adults.[96] Health risks include alcoholism, depression, suicide attempts, and unintended pregnancies—factors that can contribute to the potential for the child to continue the cycle of maltreatment for subsequent generations. In addition, the Centers for Disease Control and Prevention identified three categories of adverse childhood experiences that are most influential in developing health risk factors: abuse, neglect, and household dysfunction.[97]

In rural areas, one social services unit often serves an entire county. If a child needs counseling, or the family needs therapy, they must often travel great distances to access services. Many specialized types of social services are often not available in rural areas, such as the services necessary for child sexual abuse cases. Due to a lack of available social services, rural children who may have experienced abuse or neglect may not be identified or linked to the appropriate services.

Preventative services for at-risk children can help reduce, or preclude entirely, the long-term impact of adverse childhood experiences that impede children from realizing their full potential. Children who have participated in high quality early childhood development programs are less likely to be placed in special education, drop out of school, receive welfare, or commit crimes.[98] Early intervention programs can have long-term gains; children, from birth to six years, who participated in a model child intervention program in North Carolina were more likely to attend college and be in either a high-skilled job or higher education at age 21 than were their peers.[99] These children are more apt to grow up to have healthy, well-adjusted children. Successful services and programs that are sufficiently funded with skilled staff should be able to offer a high return-on-investment both in short-term developmental gains and in long-term human capital.[100] Many rural areas lack the resources to provide the necessary social services for children who have been maltreated, and even fewer are able to provide preventative services for at-risk children. It is particularly important to be able to identify and address the needs of at-risk children in rural areas effectively, for greater child safety and family preservation, as well as better use of community resources.

Delivering services to at-risk children from rural areas requires a level of sensitivity for rural-specific culture and values.[101] Children who grow up in rural areas

are, to some extent, geographically isolated, which shapes part of their personality and interactions. Rural communities may instill values of self-reliance, which combined with other rural-specific factors, such as the lack of anonymity or the influence of pre-existing relationships in a small community, may make a person more reluctant to seek help.[102]

Although development is ultimately determined by all of one's life experiences,[103] the adverse experiences that occur particularly during the first five years of a child's life can have long-lasting negative effects on later development.[104] The Committee recognizes the specific needs of children from birth to five years as a time of paramount importance for a person's brain development. During infancy and early childhood, the brain undergoes rapid development[105] and is hypersensitive to environmental cues.[106-108] Adverse experiences during this time period can alter the basic organization of the brain, which underlies later emotional, physical, and cognitive development,[109] resulting in what Dr. Bruce Perry, an expert on childhood trauma, calls "a lifetime of vulnerability."[110-]

[111] Neglect during the early stages of life may lead to severe, chronic, and irreversible damage to a child's brain,[112] so it is important to quickly identify and address children who are at-risk.

This chapter will focus on understanding the unique challenges facing rural children who are at-risk for abuse and neglect. Ways to provide services for at-risk children and their families will be discussed. Recommendations will emphasize utilizing preventative services and rural specific solutions. The Committee believes that employing a proactive prevention strategy, early on, for children and their families will result in fewer adverse effects and better outcomes for those children.

Indicators for Risk

Child Abuse and Child Neglect

Research suggests that rates of abuse or neglect are roughly similar in rural and urban areas. Data

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Safe Start Programs

Studies show that children, birth to five years, who witness domestic violence, are at-risk for immediate developmental difficulties. Even when they are not physically injured, children who have witnessed violence may feel extreme fear, anxiety, sadness, anger, or hopelessness. In children younger than three, witnessing traumatic events may alter the brain's anatomy and chemistry, causing problems with aggression and attachment. Without treatment, these children may find it difficult to develop positive relationships and are more likely to act violently themselves, continuing a cycle of domestic violence as adults. However, there is little funding available to implement intervention programs for these children. In 2000, the Department of Justice began the Safe Start Initiative, a demonstration project to identify and provide services to children who witnessed violence.

The Committee heard about the Safe Start program that the Chatham County Partnership for Children in North Carolina operates, during its June meeting. Safe Start educates and increases awareness about children's exposure to violence. The program identifies children exposed to violence and refers them and their families to therapeutic and family support services, such as counseling, in-home visiting, and psychological assessments. Safe Start services are available in both English and Spanish to accommodate Chatham County's growing Latino population. The program works collaboratively with many groups that may come in contact with these children, including the Department of Social Services, the Department of Public Health, domestic violence agencies, law enforcement, parents, and public schools. Between 2002 and 2008, 607 children in Chatham County were identified as having been exposed to violence; of those, 531 children have received services. During that time, 54.0 percent of the children referred in Chatham County were under five years of age.

Sources:
Straus, M. (1992). "Children as witnesses to marital violence: a risk factor." Columbus, OH: Ross Laboratories.
Chatham County Partnership for Children. (May 2007). "Safe Start: A Better Tomorrow for Children Exposed to Violence." Safe Start Referral Guide. Pittsboro, NC.
National Center for Children Exposed to Violence. (March 20, 2006). "Domestic Violence." New Haven, CT.

on sexual abuse indicate higher rates of abuse in some rural areas,[113] but current national-level, rural-specific data on child abuse and neglect are limited. Child abuse and neglect can be especially isolating in rural areas, due to geographic distances. The large distances that providers must cover in rural areas can be an impediment to service delivery.

Emotional Neglect

A child's early development is greatly influenced by the well-being of his or her parents. Therefore, when a caregiver experiences significant life stressors, it is less likely that the caregiver will adequately provide for the child's psychological well-being through a nurturing relationship.[114] This emotional neglect is often overlooked, but it can lead to poor self-image, alcohol or drug abuse, destructive behavior, and suicide.[115] Since motivation and self-esteem are critical to finding and keeping a job, children who have experienced emotional neglect may later find their lives disrupted by similar life stressors, as experienced by their parents. Ultimately, emotional neglect can cause mental health and substance abuse issues to be carried across generations, creating an overwhelming, and seemingly inescapable, cycle. Significant life stressors include substance abuse, domestic abuse, and mental illness.

Substance Abuse

Substance abuse can be a contributing factor to child maltreatment. Alcohol, methamphetamine, and stimulant abuse is a more pressing issue in rural communities.[116-117] About 20 percent of young adults in rural America met the criteria for alcohol or drug abuse, in 2003, compared to 6 percent of urban adults; rural adults also had higher rates of abuse for methamphetamine and OxyContin than did urban adults.[118] Furthermore, some rural areas have seen an increase in the number of children removed from homes, due to a rise in substance abuse.[119-120]

Domestic Abuse

Domestic abuse is a concern nationwide—an estimated two to four million women are physically abused every year.[121] However, it can be a greater concern in rural areas where rural factors such as

National Children's Advocacy Center

The National Children's Advocacy Center (NCAC) raises awareness on preventing, recognizing, and interacting with children who may have been abused or neglected through trainings for child abuse professionals and through educational materials, with the goal of reducing the incidence and long-term effects of child abuse and neglect across the country. The Center also develops best-practice models on providing services to this population. The Children's Advocacy Center model brings together a number of professionals from the local community, such as medical and victim advocacy, law enforcement, and child protection, to determine a unique system of responding to child abuse cases. The Stop Child Abuse and Neglect (SCAN) model is a school-based prevention program that focuses on educating children, parents, and other authority figures on child abuse and neglect. While their largest funding source is from the Department of Justice (DOJ), NCAC has also received funding from HHS through the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Child Trauma Grants and ACF's Early Learning Opportunities Act Discretionary Grants.

Sources:
The National Children's Advocacy Center. (n.d.). "The National Children's Advocacy Center." Huntsville, AL.
Personal Communication, Hereford, C., National Children's Advocacy Center. (November 2008).

poverty, lack of transportation, and lack of access to resources can exacerbate the situation.[122] Due to the small size of rural communities and the lack of anonymity, it is often more difficult for rural women to escape abusive relationships.[123] The greater availability of weapons in rural households increases the hazard and lethality of domestic attacks.[124]

Mental Illness

Rural residents are less likely to have access to mental health services or providers;[125] 79.8 percent of non-metropolitan counties compared to 54.8 percent of metropolitan counties were designated as mental health Health Professional Shortage Areas (HPSAs).[126] The rate of completed suicides is 17 per 100,000 in rural areas, compared to 12 to15 per 100,000 in urban areas,[127] and the number of women reporting

depressive symptoms is significantly higher, 41.0 percent in rural versus 13.0 to 20.0 percent in urban.[128] Delayed identification and treatment of a mental illness can lead to a more severe and more difficult-to-treat mental illness, as well as the development of other mental illnesses, all of which can greatly disrupt a person's ability to function socially and psychologically at home or at work.[129]

Poverty

Besides emotional neglect and life stressors, poverty is an important indicator for risk of maltreatment. Poverty is strongly correlated to many adverse childhood experiences, such as placement in the child welfare system[130] or exposure to unsafe housing;[131] poor outcomes such as developmental delay[132-133] or poor nutrition;[134] and lack of access to many resources including health care,[135] child care,[136] and social and education services.[137] ACF's National Incidence Study, NIS-3, found that children in families with an annual income lower than $15,000, in 1993, were 22 times more likely to experience child abuse or neglect than were families with incomes higher than $30,000.[138] Child poverty is a constant issue for rural America: 22.2 percent of children live below the Federal poverty line in non-metropolitan areas compared to 18.3 percent in metropolitan areas. Between 2000 and 2005, rural child poverty rates increased in 41 of 50 States; in fact, five States had rates above 30.0 percent in 2005.[139]

Current Limitations in Services

Access to Services

The child welfare system today faces many challenges in delivering both preventative and intervention services in rural areas.[140] There is a lack of basic, comprehensive services ranging from dental care to quality foster homes and early childhood education. Rural populations often face additional difficulties in accessing those services, even when they are available. For example, rural populations travel further distances and spend more time traveling for care than urban populations do.[141] Hence, people who live in rural areas are also more likely to perceive the price of gas as a problem than those who live in urban areas.[142]

Some rural families rely on public transportation to access services, such as for child care; however, there are many who do not have this option, because public transportation is limited or non-existent in many rural communities. Federal regulations now require State Medicaid plans to provide transportation assistance for those who need necessary medical services covered under Medicaid,[143-144] which can help to address the needs of the estimated 27.0 percent of children in most rural counties who rely on Medicaid.[145] Unfortunately, there remain many children who are at-risk for adverse experiences who do not qualify for Medicaid or the supporting services.

Structure of Service Sites

The current structure of rural foster care makes it difficult to strengthen rural families so that children can be permanently reunified with their families in a safe and healthy environment. Although the challenges of rural foster care have been discussed extensively in the media,[146-148] there is very limited nationwide data or data analyzed by rural versus urban location.[149] Due to a lack of rural foster homes, children who are removed from their homes in rural areas are often placed further away from home than are children from urban areas.

On the administrative side, child protective services agencies serving rural communities have noted several challenges to training foster parents in rural areas including the long distances to travel, a shortage of qualified staff, and lack of funding.[150] Potential foster parents in rural areas may find the minimum financial requirements more cumbersome than for those who live in urban areas because of higher transportation costs. Foster parents have indicated difficulties in finding basic resources, such as dental and mental or behavioral health services, within their communities, causing them to travel farther to provide basic care.[151-153] Since distribution of foster care funds are primarily calculated using number of children as a factor, rural communities with fewer children tend not to receive enough base funding to establish and maintain a foster care home. Furthermore, geographic location is not

Early Childhood Development

Through local leadership, many communities are expanding the use of resources to screen and identify children, birth to five years, with physical, social, or emotional developmental delays.

Chatham County in North Carolina has implemented an Early Intervention and Awareness program that provides outreach through educational materials for parents, Continuing Education trainings for child care providers, and education and collaboration with social services providers. They also provide educational sessions in medical practices to doctors and their staff to promote the use of validated developmental screening tools, such as the Ages and Stages Questionnaire (ASQ), and appropriate referrals of young children and their families to early intervention programs or other community resources. The Assuring Better Child Health and Development (ABCD) program focuses on incorporating validated developmental screening tools into routine well-child visits and conducting chart reviews in medical practices to track progress in screening, referral, and follow-up.

The Minnesota Thrive Initiative and System Transformation of Area Resources and Services (STARS) for Children's Mental Health collaborated with the CentraCare Clinic to expand the use of the ASQ-SE (Social Emotional) in all well-child visits and to provide training in evidence-based practices for health care providers, a standard the Committee believes that physicians who work with young children would be wise to implement. The parents complete the ASQ-SE electronically on tablets in the waiting room. The questionnaire is scored, printed, and placed into the patient chart for the physician to review prior to beginning the patient visit. The primary care providers are able to consult with a child psychiatrist, either in person or the phone. The clinic also has a triage therapist who can determine if referral to therapy would be beneficial. Thrive, STARS, and the CentraCare Clinic were able to combine resources and expertise to provide quality mental health services for infants and toddlers beyond what each group could have accomplished alone.

Sources:
Morris, A., (June 3, 2008). Remarks to the NACRHHS, June Meeting.
Ellison, J., Schmid, C. & Tilstra, D. (September 25, 2008). Remarks to the NACRHHS, September Meeting.

considered, so the additional transportation expenses that are inherent from living in a rural area are not covered.

The foster care caseload has grown at a much faster rate in rural than in urban areas.[154] Services provided while children are in foster care may not adequately support and encourage permanent reunification with their families. Data suggest that rural children are less likely to be identified for intervention services as young children and that they enter foster care as adolescents, more often than urban children, when cases tend to be more severe.[155] These rural children are less likely to find safe, permanent placement and are sometimes reunified prematurely with their families, resulting in a "revolving-door" phenomenon, or they may eventually age out of foster care.

Workforce

Across the country, there are shortages in the health and human services workforce. Not only are these workforce shortages more acute in rural areas, but demand is also expected to increase dramatically over the next decade. The lack of an adequate human services workforce necessary to provide preventative services to at-risk children is no exception to the general shortage. Professionals are also limited in their ability to focus on strengthening families by addressing parental issues and children's behavioral issues, facilitating reunification of families, helping children who have been removed from their homes adjust and recover from trauma, and completing effective triage to ensure that the children and families access the appropriate resources.

Child Welfare Workforce

The Department of Labor's Bureau of Labor Statistics has pointed to rural locations as areas of high-projected demand for child, family, and school social workers.[156] Limited Federal support is available through ACF's Child Welfare Training program, described in Appendix A. There are current challenges with low retention rates of rural case workers. Due to high caseloads and related administrative burdens that consume between 50 to 80 percent of their time,[157] caseworkers are overworked,[158] report low levels of job

satisfaction,[159-160] and tend to leave in less than two years.[161]

These current staffing shortages and high workforce turnover rates found in the child welfare system add to the challenges in providing services for rural children. Staff members do not have sufficient time to establish meaningful relationships with the children and their families or to contemplate the necessary decisions to ensure safe and stable placements, which can result in a longer time to place children permanently.[162] High caseloads limit staffs' ability to provide services beyond removing children from unsafe homes and to conduct quality case management, including home visitations that emphasize appropriate family decision-making.

Mental Health Workforce

Access to mental health services is a significant concern in rural areas, considering that nearly one in every four rural children has a potential mental health problem; among rural African-American children, that ratio increases to more than one in every three.[163] Eighty percent of rural children with potential mental health problems live in counties that do not have community mental health centers.[164] Since many communities lack access to sufficient treatments that can be provided locally, nearly 20 percent of families who have children with mental health problems are advised to give up custody so their children can receive more intensive mental health services.[165]

Rural areas are more likely than urban areas to be underserved by mental health professionals including psychiatrists, psychologists, and clinical social workers. However, training primary care providers and other health care staff to provide mental health screenings and basic mental health services in rural areas can help address rural mental health needs. Making supplemental resources available to primary care providers can particularly help, such as access to telephone consultations with child psychiatrists.[166]

Prevention and Intervention Services

The Committee believes that provision of prevention and intervention services is key to making a real difference in child protection. Current Federal funding and resources are heavily focused on treatments available only after problems have been identified and the child's developmental process may have already been interrupted. Due to the limited funding and restrictions, resources that could be used for prevention, intervention, or family support services, such as parenting classes, are generally used to provide direct services for a child.[167] The Committee notes that if these trends in resource allocation continue, it will be more difficult to improve the well-being of those children before they grow up and become parents themselves.

Many strategies do not take into account the indirect factors involved in a child's mental development, such as family history of mental illness.[168] Although some research shows that mental health interventions for children, birth to three years, and their families are effective in preventing future negative outcomes, there are few reimbursement opportunities for infant and toddler mental health services. Medicaid, a major driver behind mental health fiscal policy, often requires a formal diagnosis for reimbursement.[169]

Funding Mechanisms

Historically, the well-being of children has primarily been the responsibility of States,[170] but there are several Federal programs that provide crucial funding to support State efforts. In partnership with the States, these Federal programs are an important component in the web of services that support child well-being. The Federal funding sources specifically for children's health and children's mental health may support, but not necessarily require, preventative services. There are some programs for child care and early education that can provide additional points of entry into the health care and mental health systems. In addition, several programs provide limited funding, specifically for the purpose of identifying children and families at-risk for adverse experiences.

Many federally funded human services programs are awarded at the State level through block grants and require a State match. State leadership is given relative

Maximizing Service Delivery in Rural Communities

Although there may be different funding streams that can be used to provide the same types of preventative services, current Federal funding mechanisms often come with spending restrictions and program requirements. The funding and resources can be maximized through collaborative service delivery models, or by "braiding" the funding streams. This strategy can also streamline the administrative processes at the local level. For example, the Chatham County Partnership for Children in North Carolina was able to reduce the burden of paperwork for parents and administrations when the county programs collaborated to create a simple, but comprehensive, application for families to use in applying to multiple programs. At a State level, this can be done by planning strategically and supporting leadership informed by expertise.[171]

flexibility to use those funds for preventative and intervention services.

For State-level block grants, population data are frequently used as a primary factor to determine the relative distribution of funds. As highlighted in previous NACRHHS reports, rural communities often do not have a large enough population of children to receive an adequate base amount to provide a basic level of support for programs. Furthermore, human services programs generally do not include a rural consideration for funding, as is sometimes seen in other sectors, including health and education.

Title V of the Social Security Act (SSA), the Maternal and Child Health Services Block Grant, provides a foundation to ensure the health of all mothers and children in the United States. HRSA's Maternal and Child Health Bureau administers the three components of the block grant, the State Formula Block Grants, Special Projects of Regional and National Significance grants and Community Integrated Service Systems grants. The largest portion of Title V is provided to States through a formula-based block grant process, for which States must contribute a $3 match for every $4 of Federal funding. In 2008, the Formula Grants to States was funded at $551.2 million. At least 30

percent of the Federal funds from this grant are earmarked to preventive and primary care services for children, and 30 percent to services for children with special health care needs.

State Foster Care Programs receive the bulk of their Federal funds from ACF, through Title IV, Part E and Part B of the SSA.[172] Title IV-E is a Federal reimbursement that supports monthly maintenance payments to eligible foster care providers, foster parent recruitment, and administrative and training costs associated with a child welfare system. The amount of Title IV-E funding is determined through demonstrated financial need of the children; they must be eligible for the Aid to Families With Dependent Children using the State's standards from 1996.[173] Although Title IV-E is an entitlement program and rural child poverty rates have been increasing in recent years, fewer and fewer children qualify each year, because calculations are based on 1996 guidelines.

Title IV-B of the SSA provides some funding for services while children are in foster care and the funding can also be used for programs that aim to strengthen families in order to prevent the unnecessary separation of children from their families. Subpart 2 of Title IV-B is primarily focused on prevention and may be used to provide community-based family support, family preservation, time-limited family reunification services, and intergenerational mental health and behavioral services. While there is the potential to provide preventative services through these Federal programs, the available funding is first used to provide services needed by those already in foster care. Responsive services tend to use all of the allocated funds. In order to provide prevention, intervention, and family support services for children at-risk for adverse experiences, adequate funding is necessary.

ACF's Head Start and Early Head Start programs are particularly important in rural communities as preventative programs that hold great potential in encouraging parental involvement. ACF's Temporary Assistance to Needy Families (TANF) allows use of funds for intensive home visitation services, which can help to ensure ongoing parental education and social support for at-risk children, and increase the likelihood

Early Childhood Family Programs

At Anna Marie's battered women's shelter, a single mother of four named Susan met Jane Ellison from Sauk Rapids' Early Childhood Family Education (ECFE) in Minnesota. Recognizing that domestic violence can negatively affect all children, including infants and toddlers, Ellison began meeting weekly with Susan to help strengthen Susan's relationship with her children. After several months, Susan expressed interest in continuing her education, so Ellison worked with other staff members to enroll her in ECFE's Family Literacy program. Since the Adult Basic Education teachers were certified in special education, they were well-prepared to handle Susan's learning disability. Susan was able to work towards taking the General Education Development Test (GED) while her children participated in early education programs, all under the same roof. Furthermore, Early Head Start provided transportation, and a family advocate helped them find housing.

In the preschool, Susan's children were expressing certain behaviors of concern. Through a county mental health collaborative, a licensed psychologist was able to observe the children's behavior through a one-way mirror during class and provided a mental health referral. Based on the program's inclusion of socio-emotional development as part of school readiness, Susan's children received play therapy. With help from the Behavior Assistance Team, Susan was able to develop an individualized plan to address concerns regarding her son's particularly worrisome behavior. Ultimately, Susan completed her educational work and is continuing to attend a single parents' class through the program.

Although each of these services is supported through a number of Federal, State, county, local, and private funding sources, Susan and her family were able to transition seamlessly through a multi-dimensional system of early childhood programs, unaware of the administrative complexity of that network.

Source: Campbell, D. (September 25, 2008). Remarks to the NACRHHS, September Meeting.

of those children achieving their full potential. However, the Committee notes that these services frequently go unfunded and hopes that as welfare reform is reauthorized in upcoming years, language is included that encourages funding for intensive home visitation programs.

The table in Appendix C, Key Federal Programs to Service At-Risk Children in Rural Areas, provides information on other Federal programs that can provide funding for preventative and early intervention services.

Leadership and Service Delivery

The Committee notes that services for at-risk children may be most effectively shaped by State leaders. Since States currently determine the special needs categories in funding for Title V of HRSA's Maternal and Child Health Services Block grant, they can expand the special needs definition to include children with social and emotional disabilities. States can also determine young children exposed to domestic violence, substance abuse, or maternal depression to be eligible for the Department of Education's (ED's) Individuals with Disabilities Education Improvement Act (IDEA) funding. Currently, 4.0 percent of the ACF Child Care and Development Fund (CCDF) must be spent on improving quality of child care, which may be used to finance early childhood mental health consultations in child care settings. While State leaders have budget constraints and must examine what is feasible, the Committee believes that State leaders should consider providing preventative and family support services within their existing programs, by covering optional populations or types of services.

State leaders have the ability to expand the program to allow coverage for specific services, such as intergenerational therapy. For such a service, which requires the parents' involvement, an extension of coverage to the parents of children already under Medicaid could be made. Medicaid's Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program is a potential source for the prevention of, early intervention of, and treatment of social and emotional challenges facing young children. State

leaders can improve early mental and behavioral health by allowing reimbursement for basic phone consultations with child psychiatrists from primary care providers in mental health HPSAs. States also have flexibility with the State Children's Health Insurance Plan (SCHIP), so this program can be an effective tool to serve at-risk children, by placing a greater emphasis on child development services, mental health, dental care, and home visitations.

The combination of a number of restrictive factors can hinder effective use of resources and, thereby, limit the delivery of quality health care and human services for young children. Multi-dimensional solutions may be more effective in serving at-risk children. This can involve working with a combination of multiple providers, each with a unique skill set, such as a mental health therapist, social worker, pediatrician, or teacher. State and local leaders could improve the outcomes for at-risk children by striving for better integration of services and resources of various sectors.

Current Federal program requirements are often so complex that it can be difficult to collaborate across various programs and approaches.[174] Medicaid billing and reimbursement practices are complex, vary by State and by age group, and may not reimburse for many of the services. However, waivers have been granted for Title IV-B and IV-E programs to allow specific States more flexibility on using funding streams.[175] This flexibility has allowed several States to design innovative approaches to keeping children safe from abuse and neglect and to help families address the problems that place children at high risk. A number of States have implemented demonstration projects that focus on preventing and minimizing the occurrence of adverse childhood experiences. While State leaders hold the ability to expand services for some programs, a corresponding budget is necessary. Given the financial constraints of many States, it could be that greater flexibility or waivers for the use of funds would allow for more innovative solutions to emerge.

Summary

The health care and human services system should not view a child as an individual case by "treating" the child separately from his or her environment, which would include the family, the community, and the society. Rather, the social, emotional, and physical needs of children should be addressed by *strengthening and empowering families*. Early intervention to serve at-risk children must be a comprehensive and collaborative undertaking that should include partnerships among the health, human services, and education sectors and could potentially involve the family, the community, treatment providers, and necessary social programs.[176]

In both rural and urban areas it is important to train providers on how to interact with children who may have been abused or neglected, either physically or emotionally. The Committee believes that more efforts should be made to create awareness about the impact of adverse childhood experiences. In particular, mental health services must also be incorporated into the service delivery for at-risk children of all ages, at all levels of the spectrum, from working with parents or addressing child behavioral issues to foster care or family reunification.

Successful program development should be driven locally, since local citizens best understand the needs of their community and can identify the necessary changes to improve proactive services. Local leaders are well-positioned to leverage available resources through community collaboration. To match the delivery of services for at-risk children to the specific needs of a State or a community, States and communities need some flexibility in the use of funds, to most effectively tailor programs.

State and local programs that implement preventative services must realize that change will not be immediate upon funding preventative services. Once preventative services are in place, it will still take several years for current at-risk children to benefit from such services. There are many children who are in "the system" now and it will take years to reduce the number of children

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Iowa Community Empowerment

As part of their goal to have all children ready to learn by the age of five, the Iowa Community Empowerment program offers a number of programs to strengthen and empower families, particularly several services targeted towards parents, beyond their support for early childhood education. The Early Childhood Parent Web page provides resources for early childhood information and services. Their Healthy Opportunities for Parents to Experience Success (HOPES) program is an evidence-based home visiting program for families from pregnancy until the child is five years of age that was developed from the national model of Healthy Families America. They have also created a State Coordination Office for the Iowa Parents as Teachers program, which aims at improving children's well-being by educating parents on early childhood development, screening and identifying developmental delays, and encouraging school readiness. Furthermore, they provide personalized support to families identified as high-risk by identifying unique challenges and developing individual family support plans.

Source: Iowa Empowerment Board. (2007). *Iowa Community Empowerment 2007 Annual Report*. Des Moines, IA.

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in need of child welfare services. Since it will take time to break the cycle that continues to place children at-risk for negative outcomes, it is important that funding for child welfare services is not reduced to provide funding for preventative services. It is necessary for the current child welfare system to be fully sustained until demand for those services is effectively reduced. Funding for preventative or family support programs should not be taken from existing programs. Effective strategies to serve these children will need to include a long-term, intentional, and proactive plan in order to finance and support the necessary services.[177]

Over the past year, the Committee has found that the Federal policy levers to allow for and encourage early prevention and intervention for at-risk children are limited by current statutes and regulations. This has made it very difficult to provide specific action steps, as there is a larger need to create a comprehensive system to address the various risk factors that contribute to putting a child at-risk for adverse childhood experiences and negative outcomes, as an adolescent or an adult.

Recommendations

- The Secretary should examine and evaluate if low-population density in rural communities results in lack of adequate funding to implement and maintain prevention and intervention services for young children who are at-risk for maltreatment and adverse experiences, and their families.

- The Secretary should work with Congress to secure additional funding for Subpart 2, Promoting Safe and Stable Families, of Title IV-B of the SSA, administered through ACF. This will help to support prevention services for at-risk children.

- The Secretary should work with Congress to secure additional funding for ACF's Child Care and Development Fund (CCDF). The additional funding should increase the required CCDF funding targeted to improve the quality of child care from 4 percent to a required minimum of 10 percent of the total funding received by States, and allow for additional services to parents. The Secretary should recommend that part of these funds be set aside specifically for training child care providers in evidence-based early childhood

development services and for the mental health development of young children.

- The Secretary should work to improve mental health services for children, from birth to five years, through the following actions:
  - The Secretary should support more broad-based training in early mental health screenings and services for rural health care providers and recommend validated mental health and behavioral screenings, such as the ASQ-SE, in well-child visits.
  - The Secretary should conduct research on the effectiveness of mental health interventions for young children, specifically from birth to three years. The Secretary should support demonstrations that implement evidenced-based practices in early mental health services in rural locations.
  - The Department should work directly with States and provide technical assistance on how to use their flexibility within Medicaid (either directly or through a waiver) to provide more prevention and intervention mental health services for children.

- The Secretary should support a HHS demonstration project that would allow maximum flexibility of use of HHS funds with other Departmental programs, such as those administered by ED, to enhance prevention and intervention projects for children and families in rural communities with limited resources.

- The Secretary should conduct a demonstration to determine the feasibility of developing a pilot model for the screening tools and an appropriate referral system for children at-risk for physical or emotional abuse or neglect with the disease collaborative model that is used by many community health centers.

Appendix A

Workforce and Community Development Data

1. Projected Percent Change in Available Jobs, by Profession, for Non-metropolitan Counties, 2006-2016

Occupation	Available Jobs		Change	
	2006	2016	Number	Percent
Registered nurses	299,710	370,442	70,732	23.6%
Nursing aides, orderlies, and attendants	266,740	315,287	48,547	18.2%
Licensed practical and licensed vocational nurses	141,780	161,629	19,849	14.0%
Home health aides	127,840	190,098	62,258	48.7%
Personal and home care aides	109,320	164,636	55,316	50.6%
Emergency medical technicians and paramedics	48,450	57,752	9,302	19.2%
Pharmacy technicians	43,690	57,671	13,981	32.0%
Medical secretaries	42,610	49,726	7,116	16.7%
Medical assistants	40,720	55,135	14,415	35.4%
Dental assistants	34,220	44,212	9,992	29.2%
Pharmacists	33,030	40,198	7,168	21.7%
Radiologic technologists and technicians	28,230	32,493	4,263	15.1%
Medical records and health information technicians	24,100	28,390	4,290	17.8%

2. Projected Percent Change in Available Jobs, by Sector, for Non-metropolitan Counties, 2006-2016

Employment Sector	Available Jobs		Change	
	2006	2016	Number	Percent
Health care and social assistance	1,550,477	1,969,724	419,248	27.0%
Leisure and hospitality	1,773,624	2,026,415	252,791	14.3%
State and local government	3,530,956	3,793,903	262,947	7.4%
Construction	1,050,907	1,157,612	106,705	10.2%
Transportation and warehousing	569,664	632,960	63,296	11.1%
Mining	254,471	250,276	-4,195	-1.6%
Manufacturing	3,015,059	2,695,912	-319,147	-10.6%

Note: Figures 1 and 2 in the Workforce and Community Development chapter are based on this data.
Source: Woods, R. (February 20, 2008). "Workforce Projections." Remarks to the NACRHHS, February Meeting.

Appendix B

Key Federal Programs for Workforce and Community Development

Program	Budget*	Description
National Health Service Corps (NHSC) **Program** HRSA, BCRS	$123 million	Recruits and retains primary care providers for communities of greatest need, primarily through scholarships for health professions students, loan repayment for health professionals, and NHSC initiatives.
Nursing Education Loan Repayment Program (NELRP) HRSA, BCRS	$20.3 million	Provides financial support to registered nurses through loan repayment in exchange for at least two years of service in a healthcare facility with a critical shortage of nurses.
Nursing Scholarship Program (NSP) HRSA, BCRS	$10.1 million	Provides financial support to nursing students with greatest financial need in exchange for at least two years of service upon graduation in a healthcare facility with a critical shortage of nurses.
Advanced Education Nursing Program HRSA, BHPr	$61.9 million	Supports programs that enhance advanced nursing education and practice and funds traineeships for registered nurses enrolled in advanced nursing education programs.
Area Health Education Centers (AHEC) HRSA, BHPr	$28.2 million + local match	Promotes partnerships between academic institutions and communities to train health care providers to respond to the local needs and to improve the supply, distribution, diversity, and quality of the health care workforce.
Centers for Excellence HRSA, BHPr	$12.8 million	Supports health professions schools in the recruitment and training of under-represented minorities in the health care workforce.
Dental Public Health Residency HRSA, BHPr	$481 thousand	Supports the education of dental residents in dental public health.
Geriatric Training HRSA, BHPr	$30.9 million	Educates and trains health professionals in the diagnosis, treatment, and prevention of disease, disability, and other health problems of the aged.
Health Careers Opportunity Program (HCOP) HRSA, BHPr	$9.8 million	Encourages and supports students from disadvantaged backgrounds to enter health professions.
Health Professions Student Loans (HPSL) HRSA, BHPr	$2.8 million + institution match	Supports educational institutions in providing need-based aid for health professions students.
Health Workforce Information Center (HWIC) HRSA, BHPr	$750 thousand	Provides information online on health workforce programs, funding sources, data, research, policy, educational opportunities and models, best practices, and related news and events. www.healthworkforceinfo.org

Program	Budget*	Description
Nursing Education, Practice, and Retention HRSA, BHPr	$36.6 million	Supports academic, service, and continuing education projects to strengthen the nursing workforce and improve nurse retention.
Nursing Student Loan (NSL) **Program** HRSA, BHPr	$1.6 million	Supports educational institutions in providing long-term, low-interest loans for nursing students.
Nursing Workforce Diversity HRSA, BHPr	$15.8 million	Encourages and supports students from disadvantaged backgrounds to pursue educational opportunities in nursing.
Preventive Medicine Residency HRSA, BHPr	$1.2 million	Supports educational institutions in developing, maintaining, and improving residencies in Preventive Medicine/Public Health.
Primary Care Loans HRSA, BHPr	$5.7 million + institution match	Supports educational institutions in providing need-based aid for students in allopathic and osteopathic medicine who will train and practice in primary care.
Public Health Traineeships HRSA, BHPr	$1.3 million	Supports educational institutions in providing graduate or specialized training in public health.
Public Health Training Centers HRSA, BHPr	$4.5 million	Provides training in the technical, scientific, managerial, and leadership competencies for the public health workforce.
Training in Primary Care Medicine and Dentistry HRSA, BHPr	$48 million	Supports primary care training in family medicine, general internal medicine, general pediatrics, physician assistants, and general and pediatric dentistry.
Child Welfare Training ACF	$7.2 million + institution match	Assists State child welfare agencies to develop a stable and highly-skilled workforce.
Job Opportunities for Low-Income Individuals (JOLI) ACF	$5.3 million	Supports job creation, targeted for low-income individuals, through various business strategies.
Temporary Assistance to Needy Families (TANF) ACF	$17.1 billion	Encourages low-income parents to enter the workforce by supporting job preparation and employment services through a State grant program.
Adult Basic Education (ABE) ED, OVAE	$567.5 million	Promotes adult education programs in basic skills such as reading, writing, math, English language competency, and problem-solving through a State grant program.
Tech-Prep Programs ED, OVAE	$102.9 million	Supports Tech Prep educational programs through a State grant program. Tech Prep programs begin in high school and extend through at least two years of postsecondary education and result in either an Associate's Degree or a certificate.
President's High Growth Job Training Initiative DOL, ETA	Data not available.	Supports strategic workforce partnerships that are targeted towards employment in sectors of high growth and high demand.
President's Community-Based Job Training Grants DOL, ETA	$122.8 million	Supports community colleges to build capacity to educate and train potential workers in sectors of high growth and high demand.

Program	Budget*	Description
Senior Community Service Employment Program (SCSEP) DOL, ETA	$521.6 million	Provides community services and part-time work based training for older workers at non-profit and public facilities.
Technology-Based Learning Initiative DOL, ETA	Data not available.	Supports programs that develop the skills and competency of the workforce using technology-based learning methodologies.
Workforce Investment Act (WIA) DOL, ETA	$127.8 million	Provides training and employment services for adults, targeting dislocated workers and low-income individuals, through One-Stop Career Centers.
Workforce Innovation in Regional Economic Development (WIRED) DOL, ETA	$65 million over three years, beginning in 2007	Encourages and supports partnerships between workforce and economic development stakeholders to build a globally competitive and prepared workforce.

The Department of Health and Human Services programs are administered through the following agencies: Health Resources and Services Administration (HRSA), and Administration for Children & Families (ACF). The HRSA programs are administered through the Bureau of Clinician Recruitment & Service (BCRS) and the Bureau of Health Professions (BHPr). The Department of Labor programs are administered through the Employment and Training Administration (ETA). The Department of Education programs are administered through the Office of Vocational and Adult Education (OVAE).

* Includes Fiscal Year 2008 appropriations and notes when a funding match is required.

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Appendix C

Key Federal Programs to Serve At-Risk Children in Rural Areas

CHILDREN'S HEALTH AND MENTAL HEALTH CARE		
Program	**Budget***	**Description**
Medicaid CMS	$206.9 billion + State match	Medicaid is an entitlement program for medical assistance to low-income children, pregnant women and persons with disabilities. Medicaid's Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program is a potential funding source for the prevention of, early intervention of, and treatment of social and emotional challenges facing young children. State Medicaid programs can cover parents of low-income children and intergenerational therapy services.
State Children's Health Insurance Program (SCHIP) CMS	$6.5 billion + State match	The SCHIP program provides health insurance coverage to uninsured low-income children. States can expand coverage to include child development services and mental health services. With a waiver, States may provide coverage to parents.
Title V of the Maternal and Child Health Services Block Grant HRSA	$666.2 million + State match	Block grant programs to States to provide a foundation for ensuring the health of all mothers and children in the United States. The largest portion of Title V is provided to States through a formula-based block grant process. At least 30 percent of the Federal funds from this grant are earmarked to preventive and primary care services for children, and 30 percent to services for children with special health care needs.
Community Mental Health Services Block Grant SAMHSA	$420.8 million	A grant program for States to support existing mental health services and to encourage creative and cost-effective systems of community-based care. In 23 percent of States, at least half of the grant is spent on children's mental health services and support.

TARGETING CHILDREN AND FAMILIES AT-RISK FOR ADVERSE EXPERIENCES

Program	Budget*	Description
Child Abuse and Prevention and Treatment Act State Grants (CAPTA) ACF	$105.4 million	A grant program for States to improve child protective service systems with an emphasis on interagency collaborations across child protective services, health, mental health, juvenile justice, and education.
Child Abuse Discretionary Activities ACF	$26.5 million	A fund that provides grants and contracts for research and demonstration projects on child abuse and neglect, including home visitation programs.
Community-Based Child Abuse Prevention Program (CBCAP) ACF	$41.7 million + State match	Funds for prevention-focused programs, which can be designed to strengthen and support families.
Child Welfare Services: Title IV-B of the Social Security Act, Subpart 1, Section 425 ACF	$281.7 million + State match	Funds for States to provide a broad array of services for children in foster care with the following goals: - to protect and promote the welfare of children - to prevent the neglect, abuse, or exploitation of children - to support at-risk families through services which allow children to remain with their families or return to their families - to promote the safety, permanence, and well-being of children in foster care and adoptive families - to provide training, professional development and support to ensure a well-qualified workforce.
Promoting Safe and Stable Families: Title IV-B of the Social Security Act, Subpart 2 ACF	$365 million	Funds for States to prevent the unnecessary separation of children from families. The program is primarily focused on prevention and may be used to provide community-based family support, family preservation, and time-limited family reunification services. States may use funds for intergenerational mental health and behavioral services.
Foster Care: Title IV-E of the Social Security Act ACF	$4.6 billion	Funds for States for a portion of the administrative and training costs associated with foster care.
Adoption Assistance: Title IV-E of the Social Security Act ACF	$2.2 billion	Funds for States to facilitate the placement of children, whose special needs or circumstances would otherwise make it difficult to place, with adoptive families.
Temporary Assistance for Needy Families (TANF) ACF	$17.1 billion (State maintenance of effort required)	A grant program for States to promote job preparation and employment. States can use the funds for programs that strengthen and support families, intensive home visitation for young children at risk, and substance abuse treatment for parents.
Social Services Block Grant (SSBG) ACF	$1.7 billion	A grant program for States to provide social services, including preventing child abuse or expanding the availability of child care. Up to 10 percent of the grant may be used to prevent neglect, abuse, or exploitation of children. Flexibility allows the States to combine these funds with other programs for young children.

Program	Budget*	Description
Substance Abuse Prevention and Treatment Block Grant (SAPT) SAMHSA	$1.76 billion	A grant program for States to implement programs and services to provide treatment for substance abusers and to develop preventive systems that create healthy communities.
Child Trauma Grants SAMHSA	$34 million	A grant program to improve treatment and services for children and adolescents exposed to traumatic events.

EARLY CHILDHOOD CARE, EDUCATION, AND SPECIAL EDUCATION		
Program	**Budget**	**Description**
Head Start and **Early Head Start** ACF	$6.9 billion	Grant programs to local agencies to provide child development services for economically disadvantaged children and families. While Head Start focuses on preschoolers, Early Head Start serves children, from birth to three years. Head Start and Early Head Start are preventative programs that encourage parental involvement.
Child Care and Development Fund (CCDF) ACF	$2.1 billion	A fund for child care subsidies and for programs that improve the quality and availability of child care. Since 4 percent of funds must be spent on improving quality of child care, some States have used that to finance early childhood mental health consultation in child care settings.
Part B of the Individuals with Disabilities Education Improvement Act (IDEA) OSERS, ED	$11.2 billion	A program that provides funds for direct services for special education and services. These funds can be used for children with behavioral disorders in early care and education settings.
Part C of the Individuals with Disabilities Education Improvement Act (IDEA) OSERS, ED	$436.4 million	A program that provides funds for early intervention services for infants and toddlers and their families. States can include young children exposed to domestic violence, substance abuse, or maternal depression as eligible for services.

The Federal programs are administered through the Department of Health and Human Services at the following agencies: Centers for Medicare & Medicaid Services (CMS), the Health Resources and Services Administration (HRSA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Administration for Children and Families (ACF) and through the Department of Education's Office of Special Education and Rehabilitative Services Programs (OSERS).

* Includes Fiscal Year 2008 appropriations for the entire program and notes when a State match is required.

Appendix D

June 2008 Site Visit: Workforce and Community Development

Sites: Edgecombe Community College (ECC) - Rocky Mount, North Carolina
Area L – Area Health Education Center (AHEC) - Rocky Mount, North Carolina

Hosts: Eric Evans, Community Development Administrator
Robin Pigg, Dean of Health Sciences, ECC
Alice Schenall, Allied, Dental and Public Health Education

Speakers: Van Holt, Director of Education, Nash General Hospital; Dr. Deborah Lamm, President, ECC; Anthony Rook, Human Services Program Chair, ECC; Pamela Whitaker, Director, Workforce Development Board

Background Information:

ECC, the Area L AHEC, and many other partners, are working together to develop the Turning Point Allied Health Regional Skills Partnership (RSP), with the support of a new planning grant from the NC Department of Commerce. The RSP is a new State-wide workforce initiative that, based on results of a needs assessment, is first concentrating its efforts on supporting allied health professions. The purpose of the Allied Health RSP is to connect allied health employers, training providers, community organizations, workers, and other key stakeholders to address the workforce needs of the communities and the training, employment, and career advancement needs of allied health professionals. The Workforce and Community Development Subcommittee visited ECC, where they learned about the implementation of health and human services-related academic programs. They later convened at the Area L AHEC to discuss the various roles and challenges in workforce and community development.

Site Visit Highlights:

At ECC, the Subcommittee learned about some of the challenges associated with implementing rural health and human services training and educational programs, such as the need to provide additional courses to prepare students for post-secondary classes and the increased cost of resources. The Early High School program at ECC reaffirmed the high workforce potential that can be realized from efforts that focus on recruiting youth into health and human services professions. The experiences shared by the Turning Point RSP highlighted the importance of working with the economic sector to identify specific workforce shortages within the community and with ECC, in order to tailor training and educational programs to meet specific needs of the community. Overall, the Subcommittee was impressed by the working relationships and community partnerships that they saw between the many stakeholders in the RSP.

Appendix E

June 2008 Site Visit: Creating Viable Patient-Centered Medical Homes in Rural Areas

Sites: Pitt Memorial Hospital - Greenville, North Carolina
           James D. Bernstein Community Health Center (CHC) - Greenville, North Carolina

Hosts: Laurie Nelson, Director, Community Care Plan of Eastern Carolina (CCPEC)
           Tom Irons, Medical Director, James D. Bernstein CHC

Speakers: James Baluss, Administrator, Regional Health Plans; Joanne Koster, Case Manager, CCPEC; Tracey Simmons-Kornegay, Network Pharmacist, CCPEC; Charles Willson, Medical Director, CCPEC

Background Information:

CCPEC is a regional network within the Community Care of North Carolina program. CCPEC manages care for 108,000 Medicaid patients in a 27-county area in eastern North Carolina; all but three of these counties are non-metropolitan, and all of these counties have been designated as Medically Underserved Areas. With the help of case managers, the network's 515 providers coordinate care for their Medicaid patients enrolled in the program, targeting patients with chronic diseases, including asthma and diabetes. Additionally, CCPEC has a network pharmacist who helps coordinate prescription medication plans for patients who exceed a threshold for number of prescriptions or number of providers within a given time frame. In addition to learning about the structure of the CCPEC program from providers and staff, the Medical Home Subcommittee toured the James D. Bernstein CHC where Medicaid patients can receive medical home-type care.

Site Visit Highlights:

On this site visit the Subcommittee learned how CCPEC's concept of a medical home care team plays out in day-to-day interactions. They also learned about the relationships between primary care providers, case managers, specialists and other supporting providers. The CCPEC model demonstrated the value a case manager can add to a provider-patient relationship. Case managers are able to interact with patients outside the clinic environment, leading to more culturally effective care. The CCPEC model is currently operating in rural North Carolina and the Committee learned that CCPEC has only recently begun implementation of an electronic health record system. Most importantly, the Committee was reminded of the importance of building good relationships between providers and patients to strengthen networks of community care.

The Subcommittee also heard from Roberta Bonnet, Michelle Brooks, Karen Coward, Myra Gibbs, Anita Harrison, Linda Jenkins, Linda McDaniel, Cheryl Nelson, Jennifer Polo, James Powell, Gechett Szabo, Janet Tillman and Vickie Whitehurst.

Appendix F

June 2008 Site Visit: Serving At-Risk Children in Rural Areas

Sites: Chatham Family Resource Center - Siler City, North Carolina

Hosts: Genevieve Megginson, Executive Director, Chatham County Partnership for Children

Speakers: Deborah Day, Safe Start Project Director; Sterlin Holt, Fatherhood Program Director; Bill Lail, Chatham Family Resource Center Director; Tanika Mason, Assuring Better Child Health and Development (ABCD); Alexandra Morris, Early Identification of Children with Special Needs

Background Information:

Smart Start is a North Carolina State program that funds local partnerships to provide services to children from birth to five years, primarily in the areas of child care, child health, and family support. The North Carolina Partnership for Children (NCPC) collects data annually on the partnerships in order to perform an objective analysis of the Smart Start outcomes. NCPC uses the report cards to inform communities about their performance measures compared to the State as a whole. The Chatham County Partnership for Children promotes programs and opportunities that address a community's greatest needs for children and specifically coordinates the Smart Start Services for that county. The Partnership also coordinates a Safe Start program designed to prevent and reduce the negative impact of violence on young children, and a More at Four program, which focuses on providing quality preschool education for at-risk children to prepare them to enter elementary school.

Site Visit Highlights:

The Partnership for Children demonstrated effective delivery of services by coordinating several funding streams to fund a variety of approaches to improving the well-being of children. They offer 16 programs which include free parenting classes in English and Spanish, parenting classes for fathers, assistance for battered mothers and their children, and a one-stop shopping family resource center. The Subcommittee was impressed by the use of a single application form for families to determine program eligibility, which is available at the resource center. Finally, the Early Prevention Education and Awareness program that trains parents, educators and health care providers demonstrated the importance of early screening and identification of a child with special needs. The Subcommittee concluded that in order to make the most significant positive impact on a child's life, communities need to have a multi-dimensional approach that target the several areas that can affect a child's development, including health care, mental and behavioral health, child care, parenting skills, education, and domestic violence.

Appendix G

September 2008 Site Visit: Workforce and Community Development

Sites: Cuyuna Regional Medical Center - Crosby, Minnesota

Hosts: John Schaubach, Hospital Services Director
                    Theresa Sullivan, Organizational Support Administrator

Speakers: Elizabeth V. Delesante, MD; Mary Gottsch, Bridges Workplace Connection Director;
                    Mark W. Gujer, MD; Pamela S. O'Rourke, Integrated Retirement Initiatives, Vice
                    President; Lisa Paxton, Brainerd Lakes Chamber; John Raven, Surgical Services
                    Administrator

Background Information:

Cuyuna Regional Medical Center serves patients from 17 nearby communities and is located in Crow Wing
County. In addition to a 25-bed Critical Access Hospital, the campus houses the Minnesota Institute for
Minimally Invasive Surgery, the Crosby branch of the Minneapolis Heart Institute, the Central Lakes Medical
Clinic, the Crosby Eye Clinic, and a birthing center. Their team of 55 physicians, along with hundreds of other
health care workers and staff, pride themselves on being able to provide quality, comprehensive health care in
a rural setting. With a population of more than 61,000 people, Crow Wing County is experiencing moderate
population growth (11.9 percent from 2000-2007).[178] Some areas of the county are designated as primary
care Health Professional Shortage Areas (HPSAs) and the entire county is designated as a mental health
HPSA.

Site Visit Highlights:

Cuyuna Regional Medical Center and several organizations in Crosby are taking measures to ensure that their
facility can continue to meet the needs of the community and deliver quality health care to the surrounding rural
area. Upon arrival in Crosby, the Subcommittee received a tour of the medical campus and a presentation by
John Schaubach and Theresa Sullivan. This allowed the Subcommittee to observe the many services Cuyuna
provides through a multi-disciplinary workforce and gave the members a solid background upon which they
could view the workforce needs of the region. A panel of physicians and staff also provided the Subcommittee
with lessons about recruiting mental health providers, surgeons, and anesthesiologists to rural areas. Cuyuna
has been successful in offering fellowships and other educational opportunities for students who want to work
in rural areas. Finally, the Subcommittee heard about the Bridges Workplace Connection, a program which
allows local high school students to gain experiences in the local health care environment.

Appendix H

September 2008 Site Visit: Creating Viable Patient-Centered Medical Homes in Rural Areas

Site: Lakewood Health System's Main Campus - Staples, Minnesota

Hosts: John Halfen, Medical Director
Tim Rice, President and CEO

Speakers: Alice Carrell, RN - Clinic Director of Nursing; Julie Moriak, PharmD - Pharmacist/ Medication Management; Nicole Worden, RN - Medical Home Coordinator

Background Information:

Lakewood Health System is a group of five Rural Health Clinics, one Critical Access Hospital, and one Skilled Nursing Facility. Lakewood Health System's team provides the surrounding communities with a range of services, including family medicine, gerontology, oncology, mental health, surgery, and wound care. With Lakewood's Medical Director leading the initiative, they have recently added Medical Home care coordination to their portfolio of services for patients with chronic conditions and multiple prescriptions. In August 2008, they hired a Care Coordinator to coordinate patient appointments and reminders, education, health record reviews, and physician access for Medical Home patients. As of September 2008, nearly 300 patients had enrolled in Lakewood's version of comprehensive, medical home-type care.

Site Visit Highlights:

The Subcommittee learned how one health system was able to implement a medical home model in a rural area. Lakewood Health System's Main Campus in Todd County houses the Staples Clinic, inpatient and outpatient hospital services, the emergency department, along with laboratory and radiology services. After a tour, staff provided presentations to the Subcommittee on the medical home program. Dr. John Halfen spoke about the day-to-day operation of the medical home and shared some of the challenges and successes they experienced during its implementation. Nicole Worden described her role and responsibilities as Care Coordinator. Julie Moriak explained the Medication Therapy Management (MTM) program that coordinates pharmacy services for patients with chronic conditions and is reimbursable under Medicare Part D.[1] Lakewood Health System has an electronic health record system and plans to use it to identify potential medical home patients, in the future. The Subcommittee noted that a physician champion and hospital administration buy-in were key for Lakewood when implementing their medical home at the local level.

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[1] For more information, see Medicare Part D Medication Therapy Management (MTM) Programs 2008 Fact Sheet. Available at http://www.cms.hhs.gov/PrescriptionDrugCovContra/Downloads/MTMFactSheet.pdf

Appendix I

September 2008 Site Visit: Serving At-Risk Children in Rural Areas

Sites: Hillside School - Sauk Rapids, Minnesota

Hosts: Deb Campbell, Director, Early Childhood Family Programs (ECFE)

Speakers: Judge Kris Davick-Halfen; Jane Ellison, Minnesota Thrive Initiative; Brenda Mahoney, Stearns County Human Services; Christine Schmid, STARS for Children's Mental Health; Dr. David Tilstra, CentraCare Integrated Healthcare Program

Background Information:

ECFE, a program based at the Hillside School, offers a number of services targeted to young children and their families. The Minnesota Thrive Initiative works to raise awareness on the importance of childhood mental health services for infants and toddlers in later social and emotional development. The CentraCare Clinic at Great Start Minnesota has received funding from an Assuring Better Child Mental Health Development grant (ABCD II), a three-year learning collaboration among several States, to expand and improve social and emotional screening of young children, refer children to appropriate services and train service providers. System Transformation of Area Resources and Services (STARS) for Children's Mental Health encourages youth and family members to raise awareness about mental health in the community and to create a culturally competent mental health system that addresses specific needs of the communities. The Stearns County Family Dependency Treatment Court uses intensive client case management to work with parents whose children have been removed from the home because of abuse or neglect due to substance abuse. Evidence-based treatments and innovative system change are used to reduce substance abuse issues.

Site Visit Highlights:

Recognizing that successful early childhood programs should serve both the child and the family, ECFE offers a number of services including parent-child classes, home visits, parenting classes, early childhood screenings, preschool programs, and special education. Providing services for children, as well as family literacy and adult education, underneath one roof is beneficial for the entire family. Although the services are funded by separate programs, staff members are able to connect families to services from different programs with a seamless transition. Program leaders highlighted the importance of staff being properly trained. Parent educators were required to be licensed and many had graduate degrees. The Subcommittee was impressed by various collaborative efforts, such as a directory that compiled all of the local resources supporting early childhood development.

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Acronyms

3RNet	National Rural Recruitment and Retention Network	CBCAP	Community-Based Child Abuse Prevention Program
AAP	American Academy of Pediatrics	CCDF	Child Care and Development Fund
ABCD	Assuring Better Child Health and Development	CCNC	Community Care of North Carolina
ABCD II	Assuring Better Child Mental Health Development	CCPEC	Community Care Plan of Eastern Carolina
ABE	Adult Basic Education	CHC	Community Health Center
ACF	Administration for Children and Families, HHS	CMS	Centers for Medicare and Medicaid Services, HHS
ACICBL	Advisory Committee on Interdisciplinary, Community-Based Linkages	CPT	Current Procedural Terminology
		CRMC	Cuyuna Regional Medical Center
AHEC	Area Health Education Center	DHI	Delta Health Initiative
ASQ	Ages and Stages Questionnaire	DOJ	U.S. Department of Justice
ASQ-SE	Ages and Stages Questionnaire – Social Emotional	DOL	U.S. Department of Labor
		ECC	Edgecombe Community College
BCRS	Bureau of Clinician Recruitment and Service, HRSA, HHS	ECFE	Early Childhood Family Education
BHPr	Bureau of Health Professions, HRSA, HHS	ED	U.S. Department of Education
		EHR	Electronic Health Record
BLS	Bureau of Labor Statistics, DOL	EPSDT	Early and Periodic Screening, Diagnosis, and Treatment
CAHHIT	Critical Access Hospital-Health Information Technology Network Program	ETA	Employment and Training Administration, DOL
CAPTA	Child Abuse and Prevention and Treatment Act	FY	Fiscal Year
		GAO	U.S. Government Accountability Office

GED	General Educational Development Test	NCPC	North Carolina Partnership for Children
HCOP	Health Careers Opportunity Program	NCQA	National Committee for Quality Assurance
HIT	Health Information Technology	NELRP	Nursing Education Loan Repayment Program
HHS	U.S. Department of Health and Human Services	NHSC	National Health Service Corps
HMO	Health Maintenance Organization	NSL	Nursing Student Loan Program
HOPES	Healthy Opportunities for Parents to Experience Success	NSP	Nursing Scholarship Program
HPSA	Health Professional Shortage Area	ORHP	Office of Rural Health Policy, HRSA, HHS
HPSL	Health Professions Student Loans	OSERS	Office of Special Educational and Rehabilitative Services, ED
HRSA	Health Resources and Services Administration, HHS	OVAE	Office of Vocational and Adult Education, ED
HWIC	Health Workforce Information Center	PACE	Program of All-Inclusive Care for the Elderly
IDEA	Individuals with Disabilities Education Improvement Act	PPC-PCMH	Physician Practice Connections-Patient Centered Medical Home
JOLI	Job Opportunities for Low-Income Families	RSP	Regional Skills Partnership
MCHB	Maternal and Child Health Bureau, HRSA, HHS	RVRBS	Relative Value Resource Based System
MIPPA	Medicare Improvements for Patients and Providers Act of 2008	SAMHSA	Substance Abuse and Mental Health Services Administration, HHS
MTM	Medication Therapy Management	SAPT	Substance Abuse Prevention and Treatment
NACRHHS	National Advisory Committee on Rural Health and Human Services	SCAN	Stop Child Abuse and Neglect
NCAC	National Children's Advocacy Center	SCSEP	Senior Community Service Employment Program

SCHIP	State Children's Health Insurance Plan
SHIP	Small Rural Hospital Improvement Program
SORH	State Office of Rural Health
SSA	Social Security Act
SSBG	Social Services Block Grant
STARS	System Transformation of Area Resources and Services
TANF	Temporary Assistance for Needy Families
TRHCA	Tax Relief and Health Care Act of 2006
WDB	Workforce Development Board
WIA	Workforce Investment Act
WIB	Workforce Investment Board
WIRED	Workforce Innovation in Regional Economic Development

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Appendices:

[178] According to the U.S. Department of Agriculture's Economic Research Service, moderate population growth is defined as 7.2 to 14.4 percent.

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